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JUL 77 S C PERKINS, S S STAHARA, M J HEMSCH F44620-75-C-0047
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A test program was conducted to obtain measurements of flow velocities and static pressures in the vicinity of wing-body-store model (representative of a fighter-type aircraft) as well as surface pressures, forces, and moments on the model. Flow velocities and static pressures were also measured near the tunnel walls to provide outer flow field information. This report presents the data obtained during the test program conducted in the 4T and 16T Wind Tunnels at Arnold Engineering Development Center. The Flow-field data were obtained at Mach numbers 0.925, 0.975, and 1.025 and constitute the major part of the data. (cont)																				

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Volume I is a summary report which gives detailed information on the test program and presents uncertainties associated with the various types of data taken in the 4T Wind Tunnel. The volume also presents tunnel-empty and Mach-number surveys, as well as tabulated force and moment and pressure data for the Mach number range 0.80 to 1.15 and angles of attack -2° , -5° , 0° , 2° , and 5° . Volumes II, III, and IV present the tabulated flowfield data for the 4-percent thick wing model at Mach numbers 0.925, 0.975 and 1.025, respectively. Volume V presents the tabulated flow-field data for the 6-percent thick wing model, and Volume VI presents data obtained for the 4-percent thick wing model in the 16T Wind Tunnel.

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DATA REPORT FOR A TEST PROGRAM TO STUDY
TRANSONIC FLOW FIELDS ABOUT AIRCRAFT
WITH APPLICATION TO EXTERNAL STORES

VOLUME VI.- 16T WIND TUNNEL TESTS

By Stanley C. Perkins, Jr.,
Stephen S. Stahara and
Michael J. Hemsch

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NOMENCLATURE

This section provides a list of symbols which identify various aerodynamic parameters, axis designations, subscripts, and tabulated data nomenclature.

SYMBOLS

A_w	planform area of both wings (does not include body), 0.4444 ft ²
AAL	local upwash angle, deg; $\tan^{-1} \left(\frac{WL/VM}{UL/VM} \right)$
b	wing span, 16 in.
\bar{c}	reference length for pitching moment, 5.3444 in.
C_A	axial force coefficient, axial force/ $q_\infty A_w$
C_{LL}	rolling-moment coefficient, rolling moment/ $q_\infty A_w b$
C_{LM}	pitching-moment coefficient, pitching moment/ $q_\infty A_w \bar{c}$
C_{LN}	yawing-moment coefficient, yawing moment/ $q_\infty A_w b$
C_N	normal-force coefficient, normal force/ $q_\infty A_w$
C_p	local pressure coefficient, $(p_l - p)/q_\infty$
C_y	side-force coefficient, side force/ $q_\infty A_w$
CPS	model surface pressure coefficient, $(PS - P)/Q$
M	Mach number
p, P	free-stream static pressure, psfa
PS	model local surface pressure, psfa
q	dynamic pressure, $\frac{1}{2} \rho V^2$; psfa
r	radius of the body, in.
Re/ft	free-stream Reynolds number per foot, ft ⁻¹
SWL	local sidewash angle, deg; $\tan^{-1} \left(\frac{VL/VM}{UL/VM} \right)$
UL, VL, WL	local velocity components, positive along the positive X, Y, and Z directions; respectively, ft/sec
v	total velocity, ft/sec
VM	free-stream velocity, ft/sec

NOMENCLATURE (Continued)

X, Y, Z	body-fixed Cartesian coordinates with origin coincident with the aircraft model nose at all angles of attack, see figure 5(a)
XT, YT, ZT	tunnel-fixed Cartesian coordinates with origin coincident with the aircraft model nose at zero angle of attack, see figure 5(b)
α	angle of attack of the model, deg; angle between body axis and tunnel axis, as defined in figure 5
α_{probe}	angle of attack of probe, angle between probe axis and tunnel axis
θ	azimuthal angle in the Y-Z plane, deg; measured from the positive Y axis as shown in figure 5
ρ	mass density, slugs/ft ³

Subscripts

∞	free-stream conditions
l	local conditions

Force and Moment and Pressure Data Tabulations

A_b	area of model base, .038785 ft ²
A_w	planform area of both wings (does not include body), .4444 ft ²
ALFWM	model angle of attack, positive nose up as seen by the pilot (nose down in the tunnel), deg.
b	wing span, 16 in.
\bar{c}	reference length for pitching moment, 5.3444 in.
CA	axial-force coefficient measured by balance, in body coordinates, axial force/QA _w
CAB	base axial-force coefficient in body coordinates, $(P - \bar{P}_b)A_b/QA_w$
CAF	axial-force coefficient corrected for base effects, in body coordinates, CA-CAB

NOMENCLATURE (Continued)

CLL	rolling-moment coefficient in unrolled body coordinates, rolling moment/ $QA_W b$
CLM	pitching-moment coefficient in unrolled body coordinates, pitching moment/ $QA_W \bar{c}$
CLN	yawing-moment coefficient in unrolled body coordinates, yawing moment/ $QA_W b$
CN	normal-force coefficient in unrolled body coordinates, normal force/ QA_W
CPS N	model surface-pressure coefficients at orifice
(N = 1,25)	number N, $(PS - P)/Q$
CY	side-force coefficient in unrolled body coordinates, side force/ QA_W
M	free-stream Mach number
P	free-stream static pressure, psfa
\bar{P}_b	average base pressure, psfa
PART	test part number
PS	model local surface pressure, psfa
PT	free-stream total pressure, psfa
Q	free-stream dynamic pressure, psfa
REX10 ⁻⁶	free-stream unit Reynolds number, 1/ft
RUN	run number
SURVEY	survey number
TT	stagnation chamber total temperature, °F
VM	free-stream velocity, ft/sec
WING	wing type

Tunnel Empty Survey Data Tabulations

AATL	local upwash angle in tunnel-axis coordinates, deg; $\tan^{-1} (WT/VT)$
ALFBM	model angle of attack, deg
CPL	local pressure coefficient, $(PS - P)/Q$

NOMENCLATURE (Continued)

GP	grid point number
M	free-stream Mach number
ML	local Mach number
P	tunnel free-stream static pressure, psfa
PART	test part number
POINT	part point number
PS	local static pressure, psfa
PT	stagnation tunnel chamber pressure, primary, psfa
PTL/PT	ratio of probe stagnation pressure to tunnel chamber stagnation pressure
Q	free-stream dynamic pressure, psfa
REX10 ⁻⁶	free-stream unit Reynolds number, 1/ft
RUN	run number
SURVEY	survey number
SWTL	local sidewash angle in tunnel-axis coordinates, deg; \tan^{-1} (VT/UT)
TEST	test number
TT	stagnation chamber total temperature, primary, °F
UT/VM	ratio of velocity component in the tunnel-axis X direction to tunnel free-stream velocity
VM	tunnel free-stream velocity, ft/sec
VT/VM	ratio of velocity component in the tunnel-axis Y direction to tunnel free-stream velocity
VTL/VM	ratio of local velocity vector in tunnel-axis system to free-stream velocity vector
WING	wing type
WT/VM	ratio of velocity component in the tunnel-axis Z direction to tunnel free-stream velocity
XT	location of the probe in the tunnel-axis X direction
YT	location of the probe in the tunnel-axis Y direction
ZT	location of the probe in the tunnel-axis Z direction

Flow-Field Survey Data Tabulations

AAL	local upwash angle in body-axis coordinates, deg; \tan^{-1} (WL/UL)
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NOMENCLATURE (Continued)

AATL	local upwash angle in tunnel-axis coordinates, deg; \tan^{-1} (WT/UT)
ALFBM	model angle of attack, deg
CPL	local pressure coefficient, $(P_S - P)/Q$
GP	grid point number
M	free-stream Mach number
ML	local Mach number
P	tunnel free-stream static pressure, psfa
PART	test part number
POINT	part point number
PS	local static pressure, psfa
PT	stagnation tunnel chamber pressure, primary, psfa
PTL/PT	ratio of probe stagnation pressure to tunnel chamber stagnation pressure
Q	free-stream dynamic pressure, psfa
REX10 ⁻⁶	free-stream unit Reynolds number, 1/ft
RUN	run number
SURVEY	survey number
SWL	local sidewash angle in body-axis coordinates, deg; \tan^{-1} (VL/UL)
SWTL	local sidewash angle in tunnel-axis coordinates, deg; \tan^{-1} (VT/UT)
TEST	test number
TT	stagnation chamber total temperature, primary °F
UL/VM	ratio of probe X axis local velocity component to tunnel free-stream velocity
UT/VM	ratio of velocity component in the tunnel-axis X direction to tunnel free-stream velocity
VM	tunnel free-stream velocity, ft/sec
VML/VM	ratio of local velocity vector in the body-axis system to free-stream velocity vector
VL/VM	ratio of probe Y axis local velocity component to tunnel free-stream velocity

NOMENCLATURE (Concluded)

VT/VM	ratio of velocity component in the tunnel-axis Y direction to tunnel free-stream velocity
VTL/VM	ratio of local velocity vector in the tunnel-axis system to free-stream velocity vector
WING	wing type
WL/VM	ratio of velocity component in the tunnel-axis Z direction to tunnel free-stream velocity
WT/VM	ratio of probe Z axis local velocity component to tunnel free-stream velocity
X	location of the probe in the body-axis X direction
XT	location of the probe in the tunnel-axis X direction
Y	location of the probe in the body-axis Y direction
YT	location of the probe in the tunnel-axis Y direction
Z	location of the probe in the body-axis Z direction
ZT	location of the probe in the tunnel-axis Z direction

DATA REPORT FOR A TEST PROGRAM TO STUDY
TRANSONIC FLOW FIELDS ABOUT AIRCRAFT
WITH APPLICATION TO EXTERNAL STORES

VOLUME VI. - 16T WIND TUNNEL TESTS

1. INTRODUCTION

This volume of the data report presents the data obtained in the 16T Wind Tunnel at Arnold Engineering and Development Center. Tunnel-empty survey data and flow-field survey data are presented for $M_\infty = 0.925, 0.975, \text{ and } 1.025$ and force and moment and pressure data are presented at $M_\infty = 0.80, 0.85, 0.90, 0.925, 0.95, 0.975, 1.0, 1.025, 1.05, 1.10 \text{ and } 1.15$. All tests are for the 4-percent thick wing-body model and were performed at a nominal Reynolds number per foot of 3.0×10^6 . These tests are outlined in Tables I through VI of this volume. The tabulated data are at the end of this volume beginning on page number 1.

2. DESCRIPTION OF TESTS

The details of the test hardware and coordinate systems, as well as an overview of the purpose and scope of the test program, are provided in Volume I of this data report. The purpose of the 16T tests is to study the effects of wall interference by comparing data obtained in the 4T and 16T tests. Figure 1 of this volume shows the entire grid layout used for the inner flow-field measurements. The general grid layout used for the outer flow-field measurements is shown in figure 2. Some layouts use only a portion of these patterns, depending on Mach number and angle of attack. The grid layout is designed to give outer flow-field data at a constant radial distance from the tunnel centerline for various values of θ , the aximuthal angle, as shown in figure 3. A sketch of the wing-body combination is shown in figure 4. Figure 5 shows the 4-percent wing-body combination in the 16T Tunnel with the conical flow-field probe supported on the captive trajectory system (CTS).

The 16T tests are summarized in Table I. Columns one through

three indicate the table number, the type of test data presented (tunnel-empty survey, force and moment and pressure or flow-field survey), and the page numbers, respectively, for each set of data.

2.1 Tunnel-Empty Surveys

Table II contains the test condition grids for the tunnel-empty surveys. Columns one and two of these tests indicate the page number and part number, respectively, of the tabulated data. Columns four through seven indicate the Mach number, the initial and final positions and the incremental change in the axial coordinate, the tunnel-axis X direction, of the probe static-pressure orifices. Columns nine and ten indicate the lateral and vertical positions, the tunnel-axis Y and Z directions, respectively, of the probe longitudinal centerline.

2.2 Force and Moment and Pressure Distribution Tests

Table III contains the test condition grids for the force and moment and pressure distribution tests. Columns one and two of these tests indicate the page number and part number, respectively, of the tabulated data. Columns four and six of the force and moment and pressure tests indicate the Mach number and type of data given on each page; F & M indicates force and moment data and P indicates pressure data.

2.3 Flow-Field Survey Tests

Tables IV through VI contain the test condition grids for the flow-field survey tests at $M_{\infty} = 0.925, 0.975, \text{ and } 1.025$, respectively. Columns one and two of these tests indicate the page number and part number, respectively, of the tabulated data. Columns four through seven of the flow-field survey tests indicate the angle of attack, the initial and final positions and incremental change in the axial coordinate, the body-axis X

direction, of the probe static-pressure orifices. Columns nine and ten indicate the lateral and vertical coordinates, the body-axis Y and Z directions, respectively, of the probe longitudinal centerline. These coordinates indicate the various inner flow-field surveys. The outer flow-field surveys follow the inner flow-field surveys. Columns five, six and seven of these surveys indicate the initial and final positions and incremental change, respectively, of the axial coordinate, the tunnel-axis X direction, of the probe static-pressure orifices. Columns nine and ten indicate the lateral and vertical coordinates, the tunnel-axis Y and Z directions, respectively, of the probe longitudinal centerline.

3. DESCRIPTION OF DATA

This section presents a description of the tunnel-empty survey data, force and moment and pressure data, and flow-field survey data obtained in the 16T Wind Tunnel. These tests were conducted with the 4-percent thick wing-body model at a nominal Reynolds number per foot of 3.0×10^6 .

3.1 Tunnel-Empty Surveys

The tunnel-empty survey data are presented in tabular form on pages 1 through 10 at the end of this volume. The heading on each page contains the test number, the part number, the Reynolds number per foot, the angle of attack of the model, the type of wing attached to the model (no wing for tunnel-empty surveys), and the Y and Z (or YT and ZT) coordinates at which the X (or XT) traverse is carried out. Also included are the run and survey numbers and the date on which data were recorded.

Below the heading information are the tunnel-empty survey data obtained during each test. Column one indicates the sequential indexing number for referencing data obtained during

one part (POINT). Column two indicates the grid point number and column three indicates the location of the probe static-pressure orifices in the tunnel-axis X direction (XT). Columns four through eight indicate wind tunnel free-stream quantities. These are Mach number (M), velocity (VM, ft/sec), total pressure (PT, psfa), dynamic pressure (Q, psfa), and total temperature (TT, °F). Columns nine through seventeen indicate local quantities which were either measured by the probe or calculated from probe measurements. Columns nine through twelve contain the local Mach number (ML), the ratio of local to free-stream velocity (VTL/VM), the ratio of local to free-stream total pressure (PTL/PT), and the local pressure coefficient (CPL). Columns thirteen through seventeen contain the ratio of local velocity components in the tunnel-axis X, Y, and Z directions, respectively, to the free-stream velocity (UT/VM, VT/VM, and WT/VM, respectively) and the local upwash and sidewash angles (AATL and SWTL, respectively) referenced to tunnel-axis coordinates.

3.2 Force and Moment and Pressure Distribution Data

The force and moment and pressure data are presented in tabular form on pages 11 through 32 at the end of this volume.

Each Mach number has two pages of data associated with it. The first page contains force and moment data and the second contains pressure data. The heading on both pages is identical and contains the test number, the part number, the free-stream Mach number (M), total pressure (PT, psfa), static pressure (P, psfa), Reynolds number per foot ($REX10^{-6}$, ft^{-1}), velocity (VM, ft/sec), dynamic pressure (Q, psfa), and stagnation chamber total temperature (TT, °F). Also included are wing type (4-percent thick for these tests), the run and survey numbers, and the date on which the data were recorded.

Below the heading on the first page of each Mach number section are the data obtained during each force and moment test.

The results for the force and moment tests include the model angle of attack (ALFWM), the normal-force coefficient (CN), side-force coefficient (CY), axial-force coefficient (CA), pitching-moment coefficient (CLM), yawing-moment coefficient (CLN), rolling-moment coefficient (CLL), axial-force coefficient corrected for base effects (CAF), and base axial-force coefficient (CAB). The positive sense of these forces and moments is shown in figure 6.

Below the heading on the second page of each Mach number section are the data obtained during each pressure test. Column one indicates the orifice at which the pressure coefficient was measured. Columns two through six indicate the pressure coefficient at $\alpha = -5^\circ, -2^\circ, 0^\circ, 2^\circ$, and 5° , respectively, at each orifice location. The locations of the pressure orifices are shown in figure 4.

3.3 Flow-Field Survey Tests

The flow-field survey data at Mach numbers 0.925, 0.975 and 1.025 are presented in tabular form on pages 33 through 70 at the end of this volume. The heading on each page contains the test number, the part number, the Reynolds number per foot, the angle of attack of the model, the type of wing attached to the model (4-percent thick for this volume), and the Y and Z (or YT or ZT) coordinates at which the X (or XT) traverse is carried out. Also included are the run and survey numbers and the date on which data were recorded.

Below the heading information are the flow-field survey data obtained during each test. Columns one and two indicate the sequential indexing number for referencing data obtained during one part (POINT) and the grid point number, respectively. Column three indicates the location of the probe static-pressure orifices in the body-axis direction (X) for the inner flow-field surveys or in the tunnel-axis direction (XT) for the outer flow-field surveys. Columns four through eight indicate wind tunnel

free-stream quantities. These are Mach number (M), velocity (VM , ft/sec), total pressure (PT , psfa), dynamic pressure (Q , psfa), and total temperature (TT , $^{\circ}F$). Columns nine through seventeen indicate local quantities which were either measured by the probe or calculated from probe measurements. Columns nine through twelve contain the local Mach number (ML), the ratio of local to free-stream velocity (V_{ML}/VM or V_{TL}/VM), the ratio of local to free-stream total pressure (PTL/PT), and the local pressure coefficient (CPL). For the inner flow-field surveys, columns thirteen through seventeen contain the ratio of local velocity components in the body-axis X , Y , and Z directions, respectively, to the free-stream velocity (U_L/VM , V_L/VM , and W_L/VM , respectively) and the local upwash and sidewash angles (AAL and SWL , respectively) referenced to body-axis coordinates. For the outer flow-field surveys, columns thirteen through seventeen contain these same local quantities as determined in the tunnel-axis system. The positive sense of the velocity components is along the positive X , Y , and Z directions. A positive local upwash angle indicates downward flow away from the wing-body combination, the positive Z or ZT direction, see figure 7. A positive local sidewash angle indicates flow along the positive Y or YT axis, see figure 7.

4. DATA UNCERTAINTIES

Uncertainties in the aerodynamic coefficients, local conditions, flow angles, and probe position for the 16T Wind Tunnel were provided by ARO and are presented in Table VII.

The uncertainties in probe positions were particularly difficult to obtain. The values given in Table VII are estimates only. An optical test for one probe position was conducted with the wind on and with the wind off. For these tests, a reflective band was painted on the model body aft of the trailing edge of the wing. The Z -position of the probe in the $Y = 0$ plane was

measured optically and compared with the nominal (requested) and computed (tabulated) values. For the wind-off cases, an additional check was made by hand using a ruler. Some typical results are given in Table VIII. For all the calibration tests made, the tabulated probe positions were more accurate for the $\alpha = -5^\circ$ cases than for the $\alpha = +5^\circ$ cases.

It is noted here that the center of rotation for pitch in the 16T tunnel was located a considerable distance behind the base of the model. Consequently, the wing-body combination at angle of attack was displaced from its tunnel position at $\alpha = 0^\circ$. At $\alpha = 0^\circ$, the nose was located at $X = 0$, $Z = 0$ and was 3.75 inches below the tunnel centerline. For $\alpha = -5^\circ$, the nose was at $X = .385$, $Z = -8.53$, while at $\alpha = +5^\circ$, the nose was located at $X = .513$, $Z = 11.52$. Such a change in model position with respect to the tunnel centerline for various angles of attack could have an effect on the results obtained for these angles of attack.

REFERENCES

1. Reichenau, D. E.: AFFDL Wing-Body Flow-Field Study Test. PWT 16T Facility Project Criteria, Project No. P41T-M4A, Test No. TF-445, Mar. 10, 1977.

TABLE I. - SUMMARY OF
TABULATED DATA IN VOLUME VI

$$Re/ft = 3.0 \times 10^6$$

Table (1)	Test (2)	Pages (3)
II	Tunnel-Empty Surveys	1 - 10
III	Force and Moment and Pressure Tests	11 - 32
IV	Flow-Field Surveys At $M_\infty = 0.925$	33 - 45
V	Flow-Field Surveys At $M_\infty = 0.975$	45 - 57
VI	Flow-Field Surveys At $M_\infty = 1.025$	58 - 70

TABLE II.- TUNNEL-EMPTY SURVEYS

1	2	3	4	5	6	7	8	9	10
Page No.	Part No.		Mach No.	Initial XT inches	Final XT inches	Δ XT inches		YT inches	ZT inches
1	102		.925	-6.0	24.0	2.0		0.0	-14.2
2	103		↓	-40.0	↓	↓		↓	0.0
3	104		↓	-6.0	↓	↓		14.1	↓
4	106		↓	↓	↓	↓		0.0	8.3
5	97		.975	-6.0	24.0	2.0		0.0	-14.2
6	96		↓	-42.0	↓	↓		0.0	0.0
7	98		↓	-6.0	↓	↓		14.1	0.0
8	101		1.025	-6.0	24.0	2.0		0.0	-14.2
9	100		↓	-40.0	↓	↓		0.0	0.0
10	99		↓	-6.0	↓	↓		14.1	0.0

TABLE III. - FORCE AND MOMENT AND PRESSURE TESTS

1	2	3	4	5	6	7	8	9	10
Page No.	Part No.		Mach No.		Type of Data				
11	9		.800		F & M				
12	↓		↓		P				
13	10		.850		F & M				
14	↓		↓		P				
15	11		.900		F & M				
16	↓		↓		P				
17	12		.923		F & M				
18	↓		↓		P				
19	13		.950		F & M				
20	↓		↓		P				
21	14		.974		F & M				
22	↓		↓		P				
23	15		1.001		F & M				
24	↓		↓		P				
25	16		1.025		F & M				
26	↓		↓		P				
27	17		1.051		F & M				
28	↓		↓		P				
29	18		1.100		F & M				
30	↓		↓		P				
31	19		1.151		F & M				
32	↓		↓		P				

TABLE IV. - FLOW-FIELD SURVEYS AT $M_\infty = 0.925$

1	2	3	4	5	6	7	8	9	10
Page No.	Part No.		Angle of Attack, degrees	Initial X inches	Final X inches	ΔX inches		Y inches	Z inches
33	59		0.0	10.0	19.0	.33		4.0	-1.0
34	77		5.0	11.0	↓	↓		↓	-.9
35	92		-5.1	↓	↓	↓		↓	-1.1
36	62		0.0	↓	↓	1.33		-4.0	-1.0
						↓			
				Initial XT inches	Final XT inches	ΔXT inches		YT inches	ZT inches
37, 38	44, 45		0.0	-5.8	24.0	.50		0.0	-14.2
39, 40	57, 58		↓	-5.4	↓	↓		14.2	0.0
* 41, 42	72, 73		5.0	-5.0	↓	↓		0.0	-14.0
43	78		↓	↓	↓	1.00		↓	-13.2
44	84		↓	↓	↓	↓		14.2	0.0
45	91		-5.0	-6.0	↓	↓		0.0	-14.1

* $\alpha_{\text{probe}} = 5^\circ$ for parts 72 and 73

TABLE V.- FLOW-FIELD SURVEYS AT $M_\infty = 0.975$

1	2	3	4	5	6	7	8	9	10
Page No.	Part No.		Angle of Attack, degrees	Initial X inches	Final X inches	ΔX inches		Y inches	Z inches
46	60		0.0	11.0	19.0	.33		4.0	-1.0
47	76		5.0	↓	↓	↓		↓	-.9
48	87		-5.1	↓	↓	↓		↓	-1.1
49	61		0.0	↓	↓	1.33		-4.0	-1.0
				Initial XT inches	Final XT inches	ΔXT inches		YT inches	ZT inches
50, 51	46, 47		0.0	-5.8	24.0	.50		0.0	-14.2
52	56		↓	-5.4	↓	↓		14.2	0.0
* 53, 54	74, 75		5.0	↓	↓	↓		0.0	-14.1
55	79		↓	-5.0	↓	1.00		↓	-13.2
56	83		↓	↓	↓	↓		14.2	0.0
57	85		-5.1	↓	↓	↓		0.0	-14.1

* $\alpha_{\text{probe}} = 5^\circ$ for parts 74 and 75

[illegible]

TABLE VII.- UNCERTAINTIES FOR THE 16T WIND TUNNEL TESTS.

FORCE AND MOMENT DATA						
Uncertainty (+), Absolute						
<u>C_N</u>	<u>C_Y</u>	<u>C_A</u>	<u>C_{LL}</u>	<u>C_{LM}</u>	<u>C_{LN}</u>	<u>CPS</u>
.0041	.0015	.0026	.0004	.0051	.0001	.0091

WIND TUNNEL FREE-STREAM PARAMETERS		
Uncertainty (+), Absolute		
<u>M</u>	<u>Q, psf</u>	<u>P, psf</u>
.0033	2.243	2.566

PROBE POSITION			
Uncertainty (+), Absolute			
<u>X, in.</u>	<u>Y, in.</u>	<u>Z, in.</u>	<u>α_{probe}, deg</u>
0.150	0.150	0.250	0.25

FLOW AND MODEL ANGLES	
Uncertainty (+), Absolute	
<u>AAL, deg</u>	<u>SWL, deg</u>
0.229	0.229

LOCAL CONDITIONS	
Uncertainty (+), Absolute	
<u>M_l</u>	<u>C_P</u>
0.018	0.030

TABLE VIII.- TYPICAL COMPARISON OF NOMINAL, TABULATED AND MEASURED Z-POSITIONS OF PROBE IN $Y = 0$ PLANE (ALL VALUES ARE IN INCHES).

WIND-OFF			
α	<u>Nominal</u>	<u>Tabulated</u>	<u>Measured Optically</u> <u>Measured by Hand</u>
+5°	1.000	0.829	0.870 0.880
-5°	1.000	1.178	1.08 1.07

WIND-ON			
α	<u>Nominal</u>	<u>Tabulated</u>	<u>Measured Optically</u>
+5°	1.000	0.874	0.62
0°	1.000	1.000	0.784
-5°	1.000	1.06	0.94

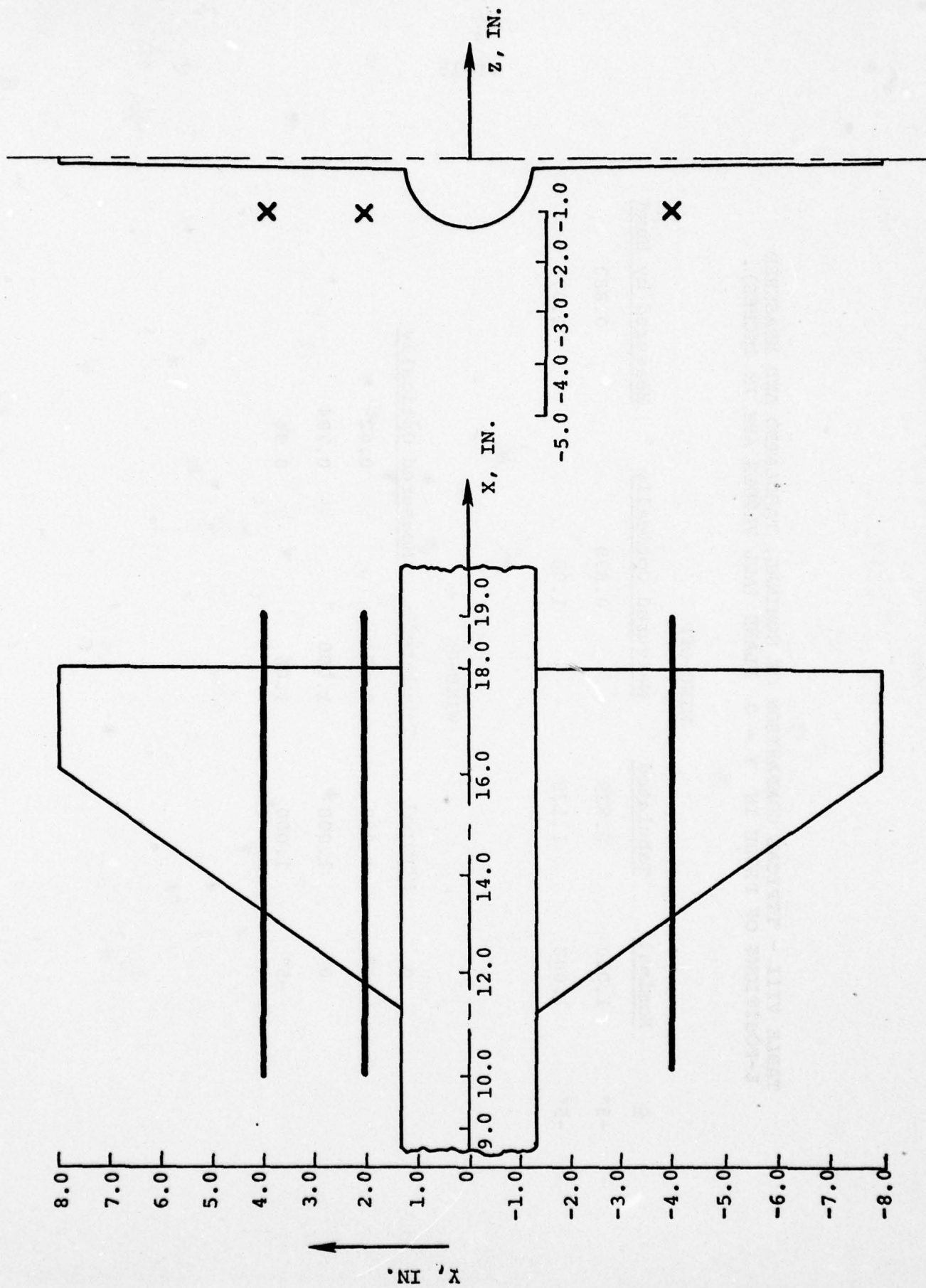
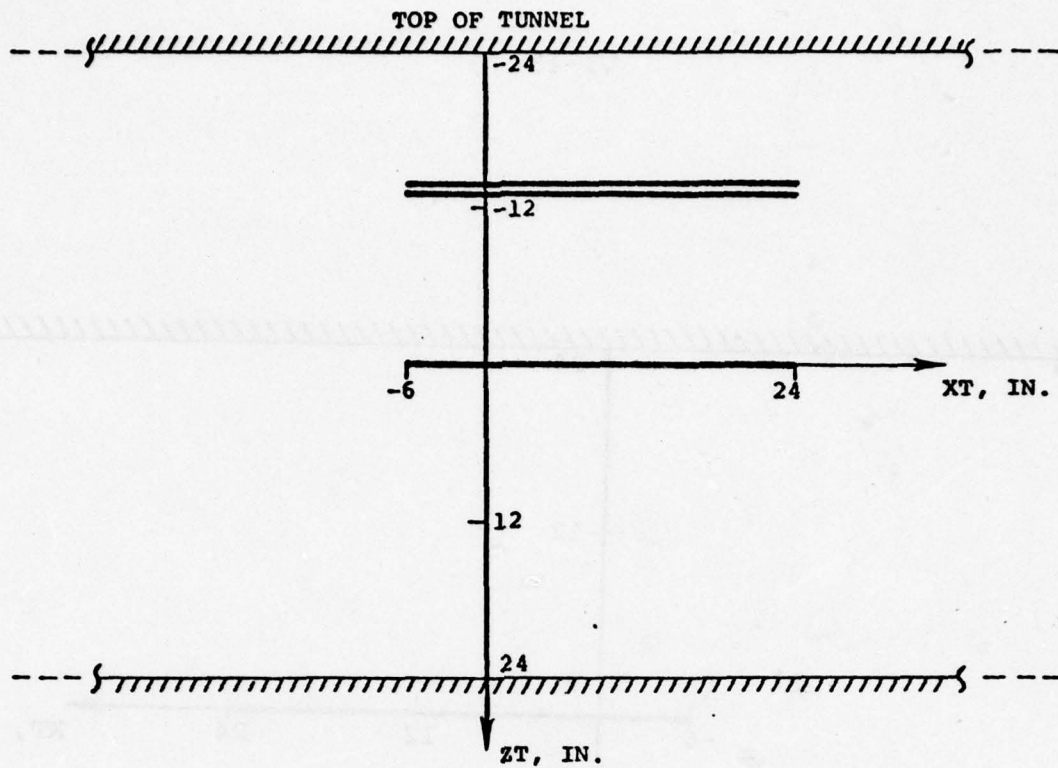
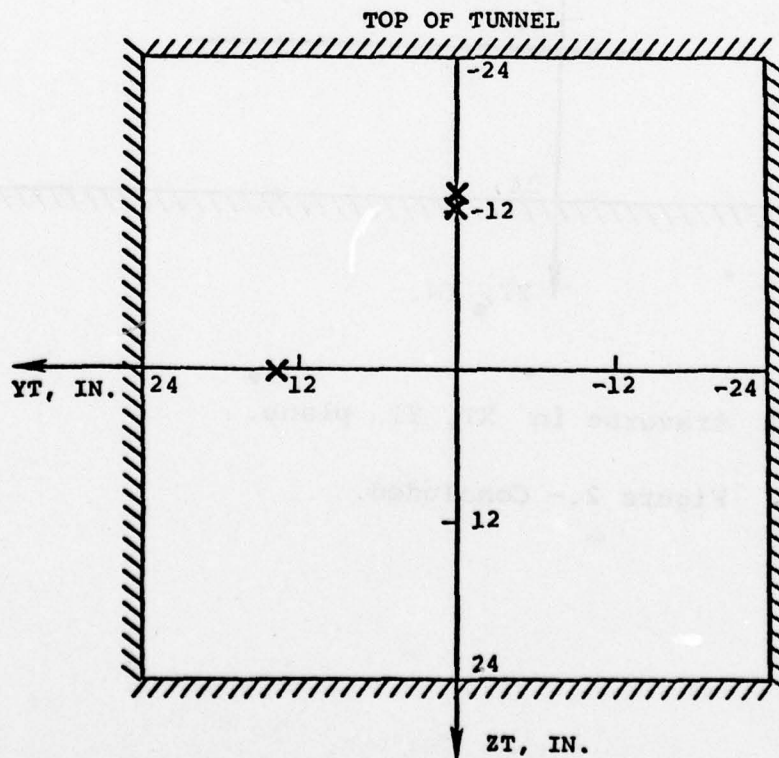


Figure 1.- General grid for inner flow-field measurements.



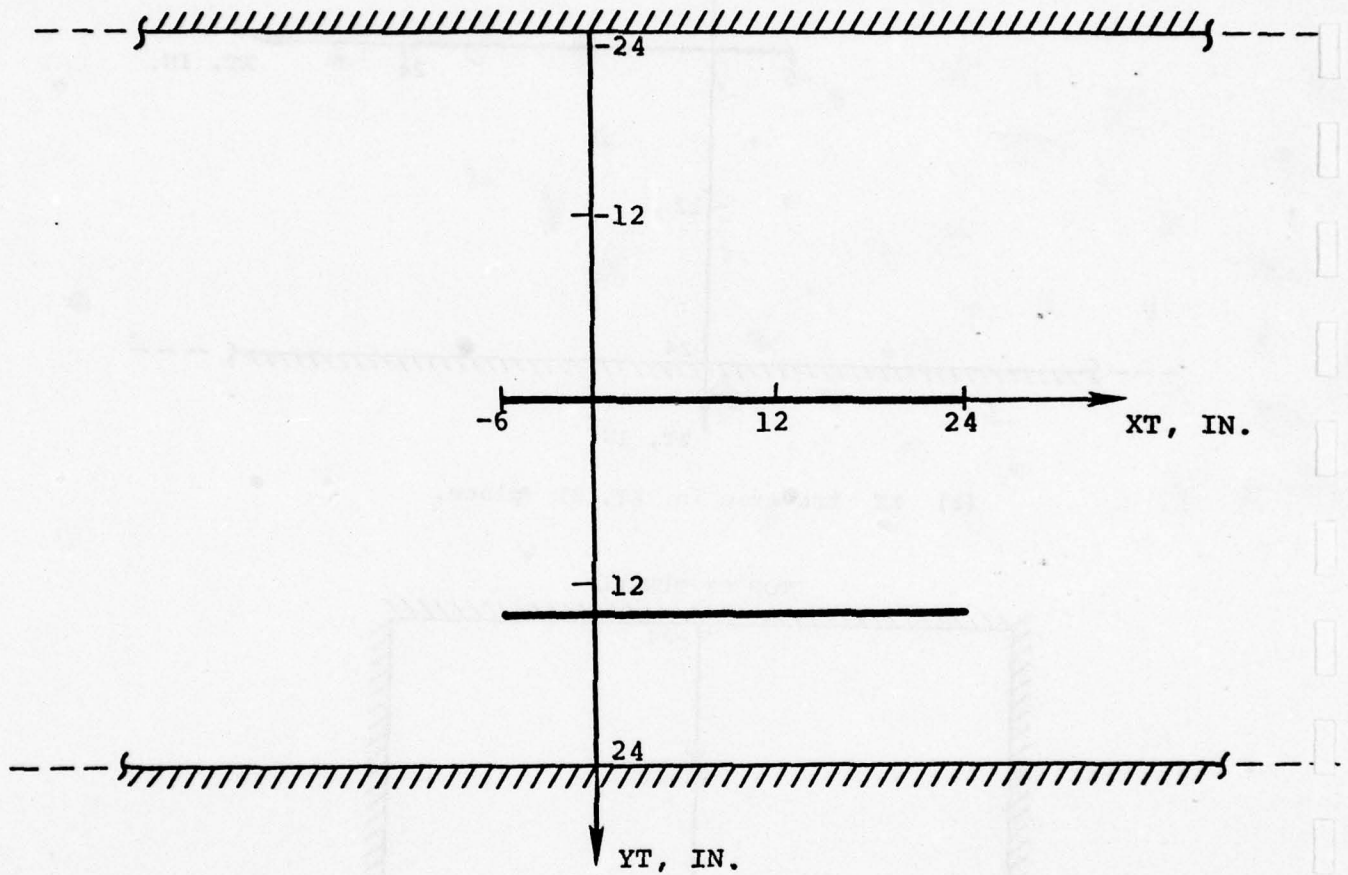
(a) XT traverse in XT, ZT plane.



(b) XT traverse in YT, ZT plane.

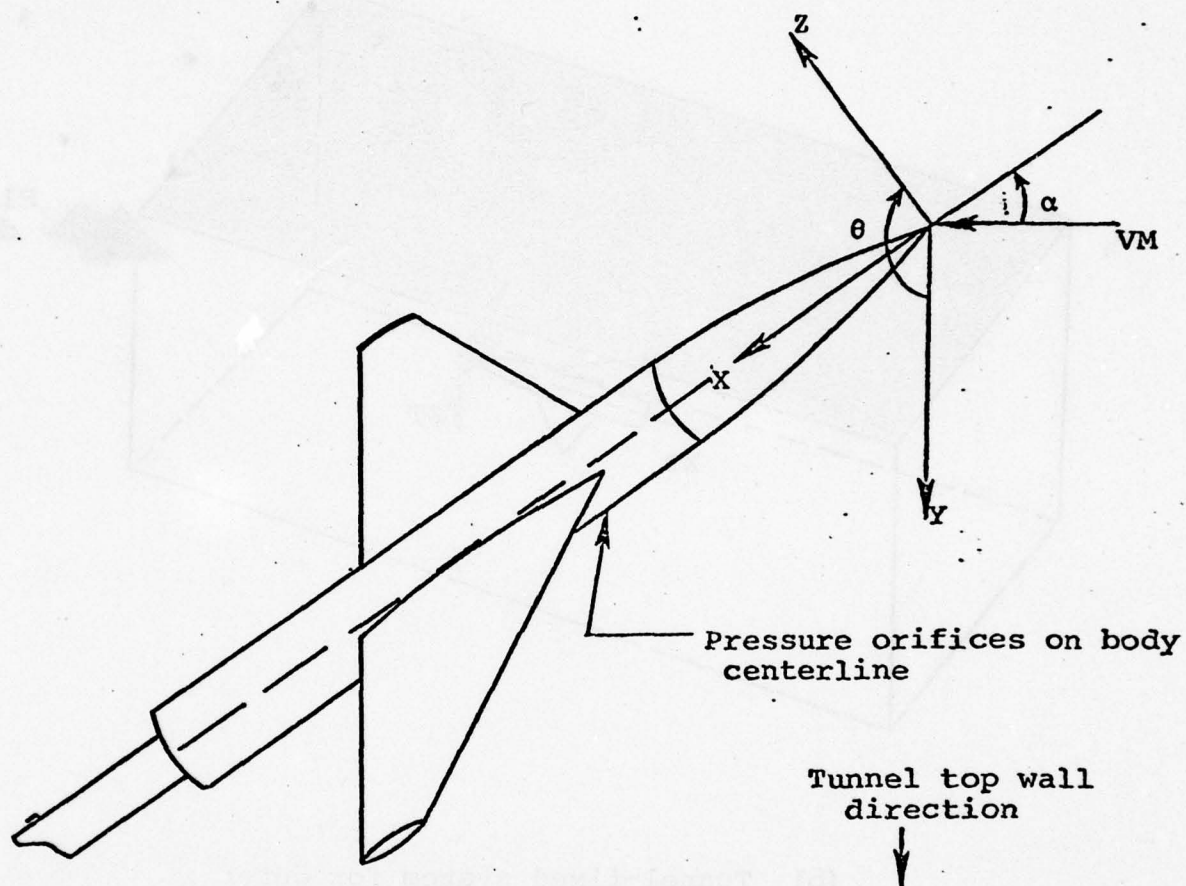
Figure 2.- General grids for outer flow-field surveys.

VI-18



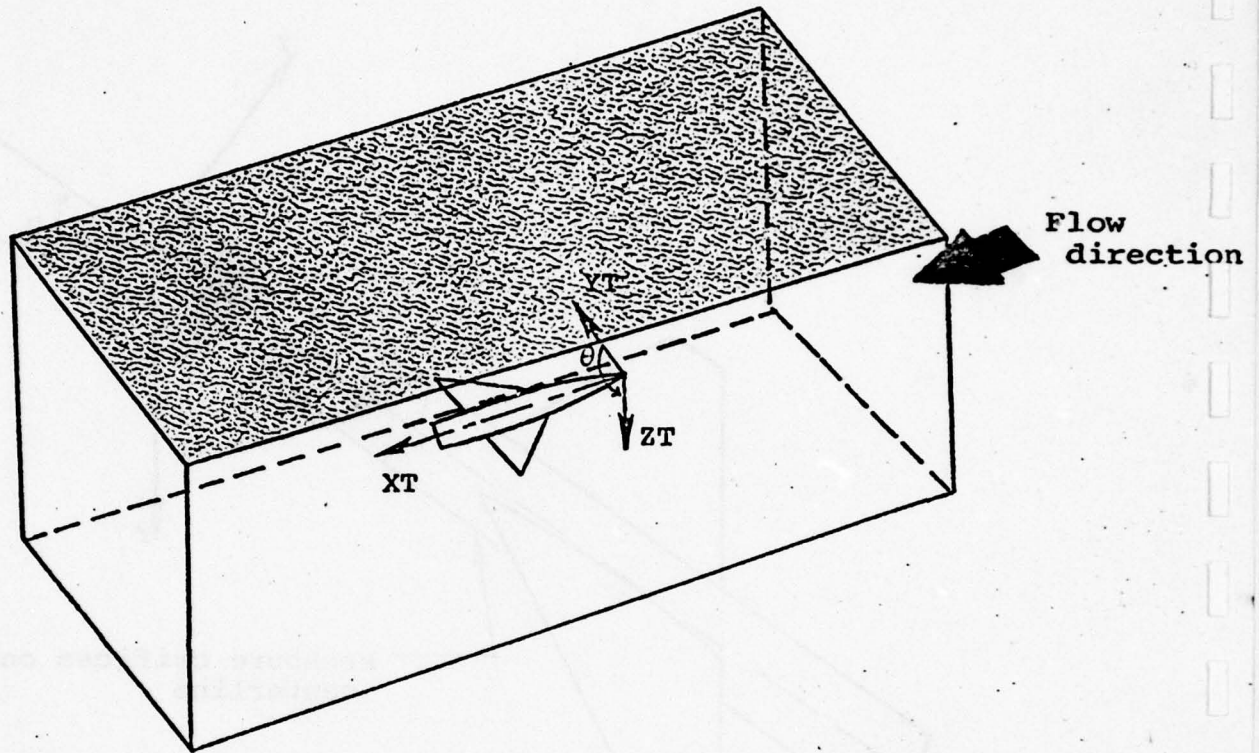
(c) XT traverse in XT, YT plane.

Figure 2.- Concluded.



(a) Body-fixed system for inner flow field surveys.

Figure 3.-Coordinate systems.



(b) Tunnel-fixed system for outer flow field surveys.

Figure 3.- Concluded.

BODY COORDINATES	
$x, \text{ in.}$	$r, \text{ in.}$
0	0
0.5	0.162
1.0	0.313
1.5	0.453
2.0	0.583
2.5	0.703
3.0	0.813
3.5	0.912
4.0	1.000
4.5	1.078
5.0	1.146
5.5	1.203
6.0	1.250
6.5	1.287
7.0	1.313
7.5	1.328
8.0	1.333
24.0	1.333

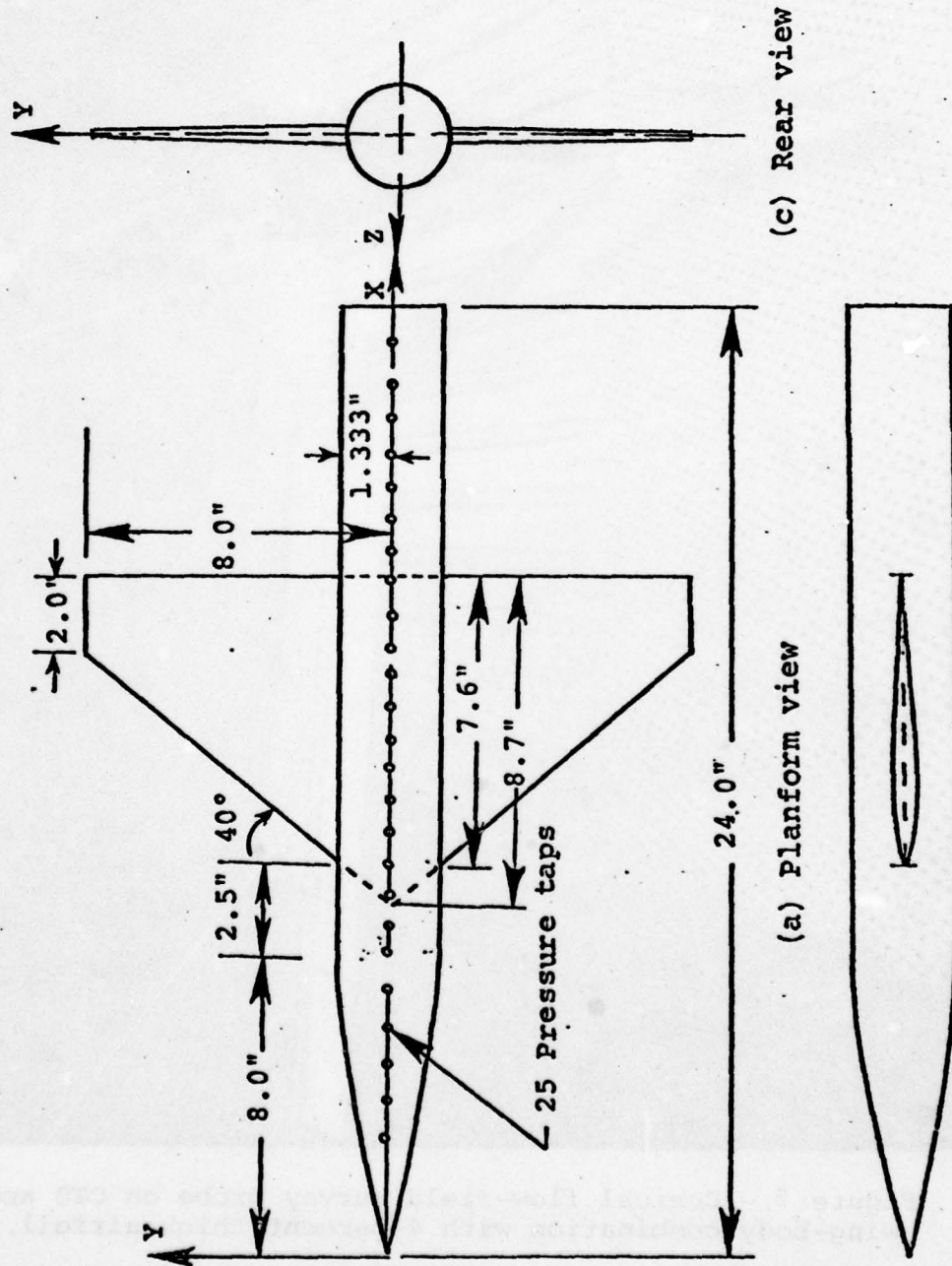
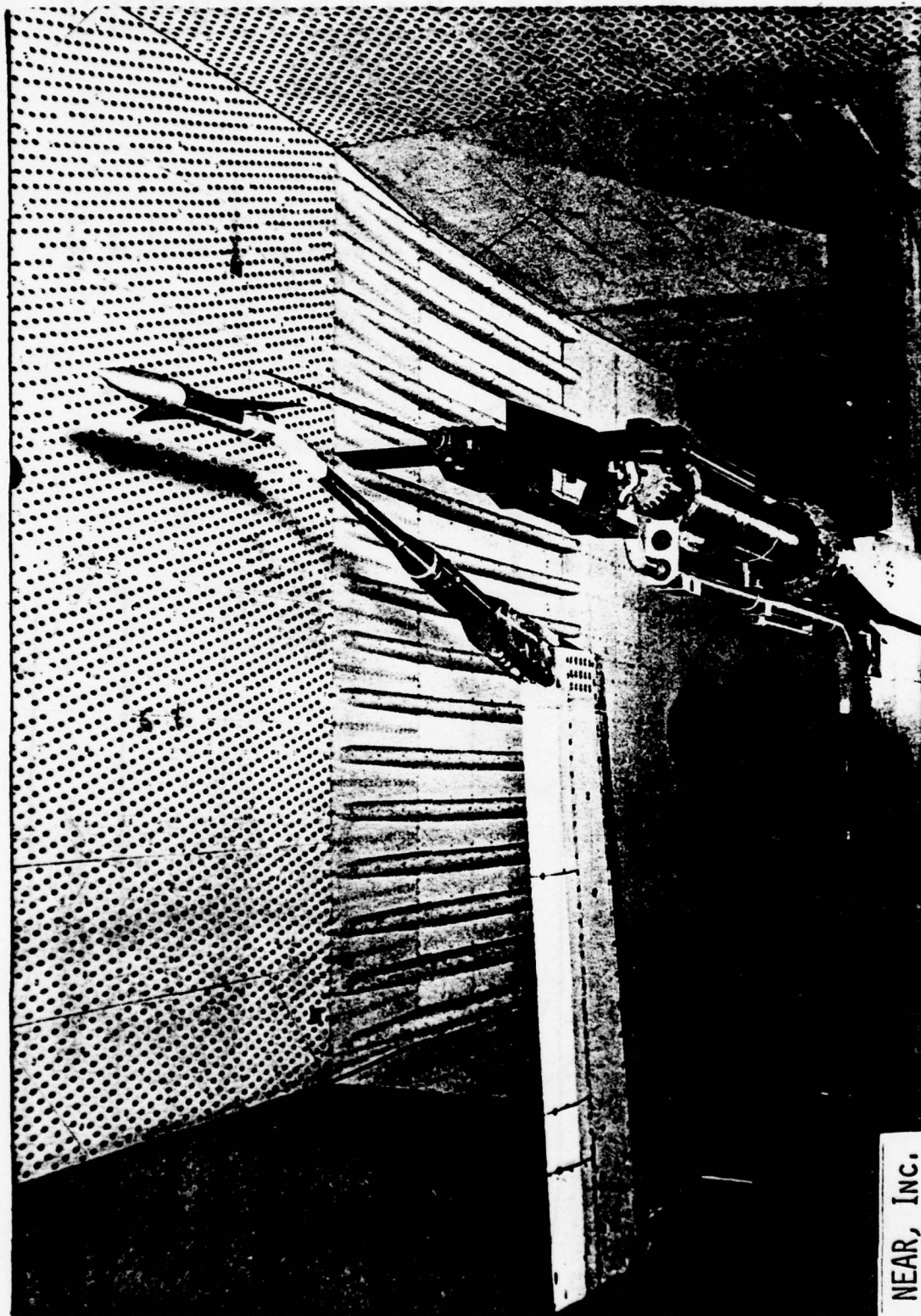


Figure 4.- Wing-body combination.



NEAR, INC.

Figure 5.- Conical flow-field survey probe on CTS and wing-body combination with 4-percent thick airfoil.

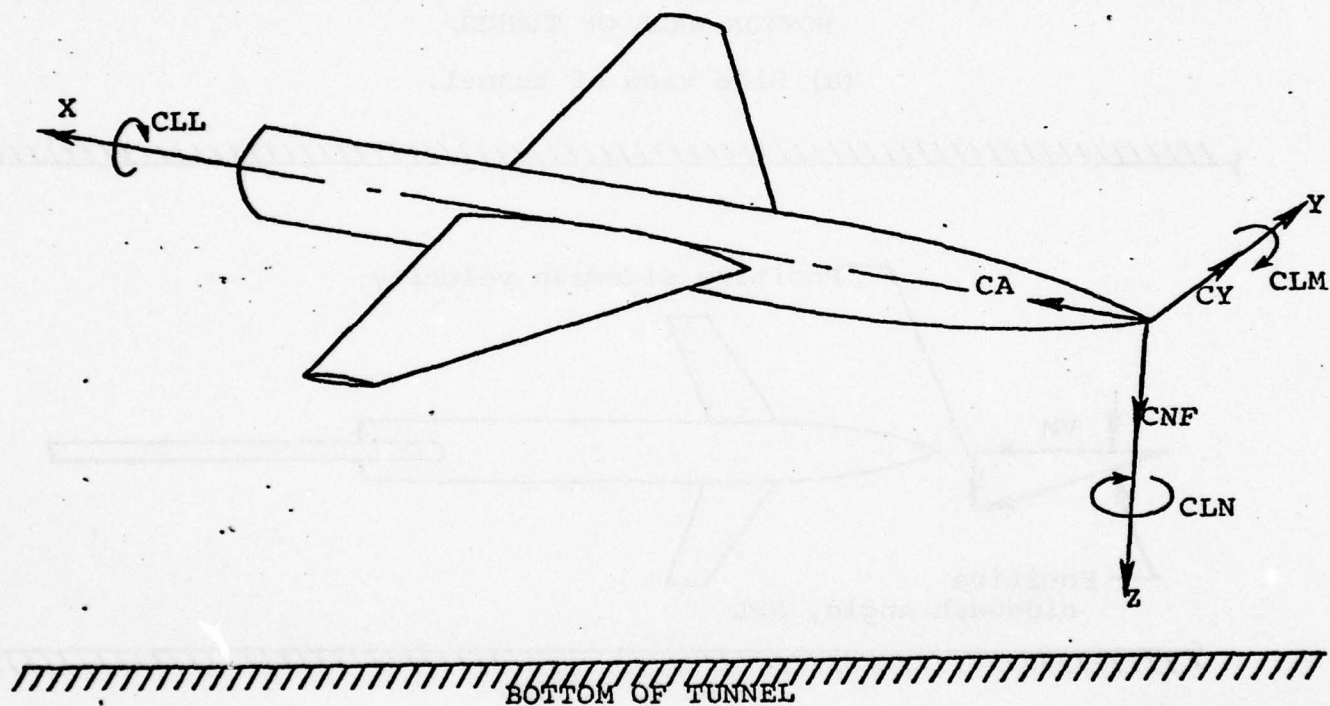
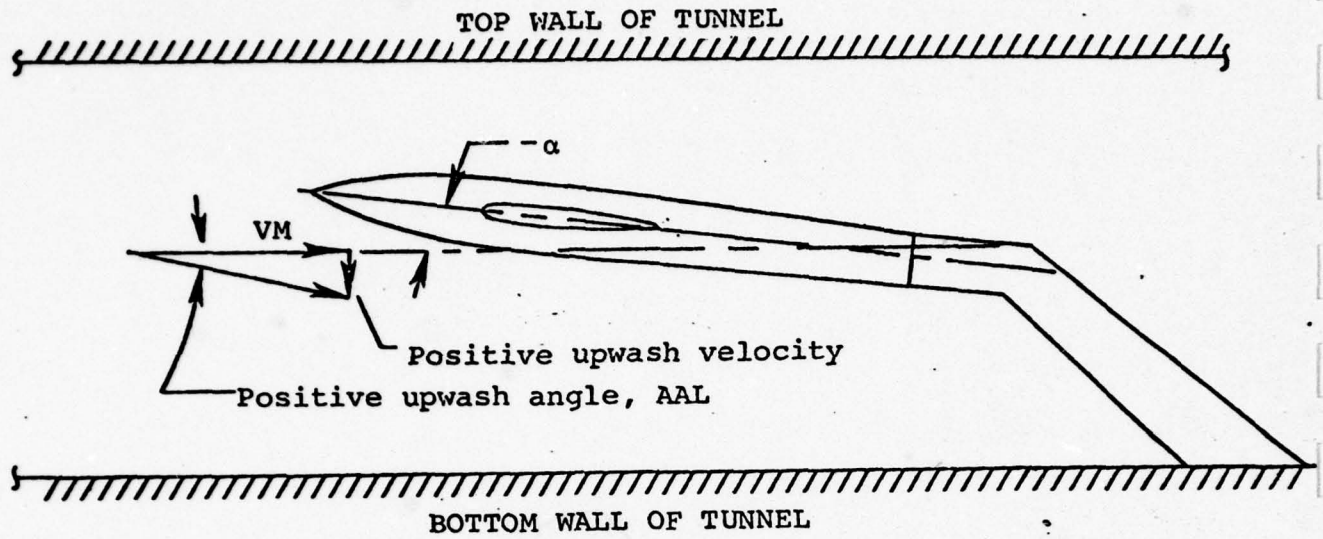
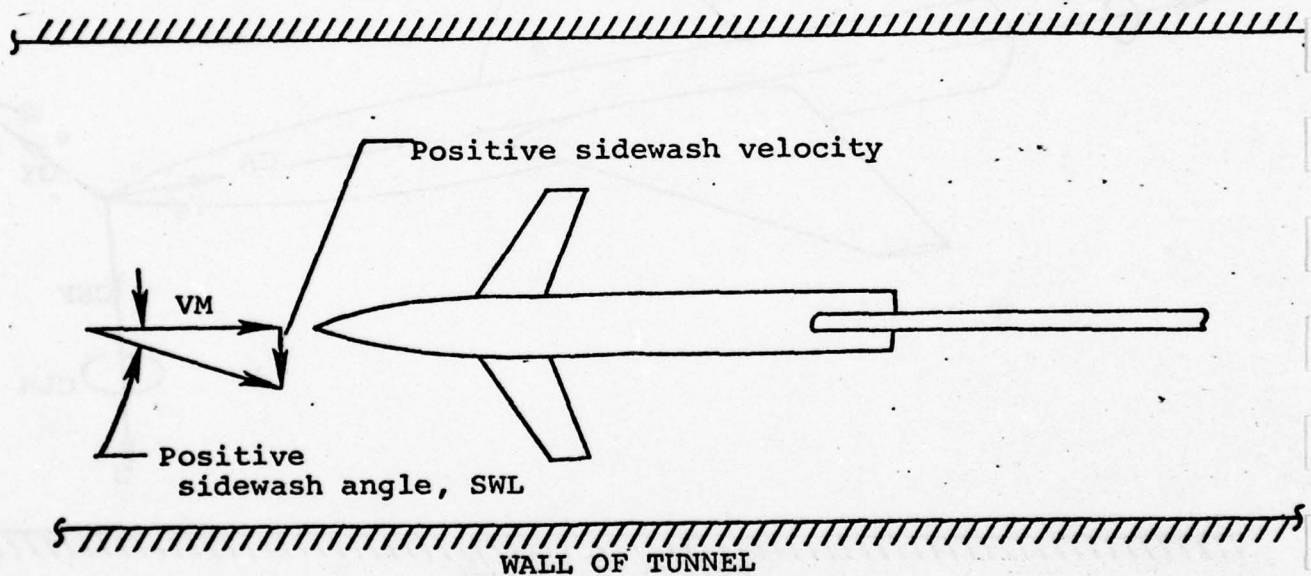


Figure 6.-Sketch of the wing-body configuration in the tunnel showing positive sense of forces and moments.



(a) Side view of tunnel.



(b) Plan view of tunnel from top.

Figure 7.-Pictorial sign convention for upwash and sidewash angles.

TEST PART REF ID - 0 ALPH WIND SURVEY

DATE 4-14-77

AEUC PROPULSION WIND TUNNEL
TRANSONIC 161

TEST PART REF ID - 0 ALPH WIND SURVEY
102 3.011 0.000 NONE

OUTER FLOW FIELD SURVEY SUMMARY

POINT GP	AT	W	V ₀	PT	U	TI	ML	VTL/VM	WIL/PT	CPL	UT/VM	VT/VM	WI/VM	AAIL	SWTL
1 25	26.016	0.926	982.07	1478.1	507.8	89.3	0.916	0.99	1.000	0.020	0.991	0.008	0.002	0.13	0.44
2 25	21.955	0.926	982.16	1480.0	510.5	89.4	0.914	0.99	1.000	0.014	0.993	0.007	0.003	0.17	0.42
3 25	20.037	0.925	981.50	1482.4	511.0	89.2	0.920	0.99	1.001	0.012	0.995	0.007	0.003	0.17	0.43
4 25	18.007	0.925	981.65	1483.4	511.5	89.4	0.921	1.00	1.001	0.009	0.996	0.007	0.003	0.18	0.42
5 25	16.022	0.925	981.68	1484.8	511.7	89.4	0.919	0.99	1.001	0.012	0.994	0.008	0.004	0.22	0.45
6 25	14.001	0.926	982.18	1484.5	512.0	89.4	0.919	0.99	1.000	0.013	0.993	0.008	0.004	0.25	0.45
7 25	11.983	0.926	982.07	1484.3	511.9	89.4	0.920	0.99	1.000	0.011	0.995	0.008	0.004	0.22	0.45
8 25	10.030	0.926	981.89	1483.8	511.6	89.4	0.920	0.99	0.997	0.008	0.995	0.008	-0.003	-0.19	0.46
9 25	7.994	0.926	982.06	1483.4	511.7	89.2	0.922	1.00	1.001	0.009	0.996	0.008	0.004	0.23	0.47
10 25	5.958	0.925	981.05	1482.0	510.7	89.1	0.919	0.99	1.000	0.013	0.994	0.008	0.004	0.23	0.47
11 25	3.963	0.926	981.59	1482.7	511.2	89.2	0.921	1.00	1.001	0.009	0.996	0.007	0.004	0.24	0.43
12 25	2.021	0.926	981.81	1482.7	511.4	89.1	0.924	1.00	1.001	0.005	0.998	0.005	0.004	0.24	0.30
13 25	0.032	0.926	981.95	1482.7	511.3	89.3	0.919	0.99	1.000	0.013	0.994	0.012	0.005	0.26	0.67
14 25	-1.998	0.926	982.28	1483.0	511.4	89.7	0.921	1.00	1.001	0.010	0.995	0.008	0.005	0.27	0.47
15 25	-3.971	0.926	982.53	1482.2	511.4	89.4	0.923	1.00	1.001	0.007	0.997	0.009	0.005	0.31	0.52
16 25	-5.956	0.926	981.85	1480.1	510.4	89.2	0.917	0.99	1.000	0.016	0.992	0.004	0.004	0.26	0.24

TEST NAME MEXICO-0 ALPHA-1
TF-45 103 3.007 0.000 NONE

DATE 4-14-77
AEDC PROPULSION WIND TUNNEL
TRANSONIC 14T

POINT GP XI YI ZI RUN SURVEY
1 25 23.559 0.925 981.51 1400.0 510.2 89.4 0.917 0.99 1.000 0.016 0.932 0.003 0.16 0.67

OUTER FLOW FIELD SURVEY SUMMARY

2 25 21.550 0.926 982.13 1400.8 510.7 89.4 0.918 0.99 1.001 0.015 0.993 0.003 0.16 0.67

3 25 20.003 0.926 981.50 1401.1 510.6 89.5 0.918 0.99 1.000 0.015 0.993 0.003 0.19 0.66

4 25 14.000 0.926 982.57 1401.4 511.1 89.4 0.920 0.99 1.001 0.013 0.994 0.003 0.19 0.66

5 25 14.021 0.926 982.36 1401.4 511.0 89.4 0.922 0.99 1.001 0.013 0.994 0.003 0.19 0.66

6 25 14.011 0.926 982.36 1401.4 511.1 89.4 0.920 0.99 1.001 0.012 0.994 0.004 0.23 0.67

7 25 12.030 0.927 982.64 1401.7 511.3 89.4 0.934 0.99 1.001 0.002 1.006 0.005 0.31 0.67

8 25 10.014 0.927 983.06 1402.3 511.7 89.6 0.922 0.99 1.001 0.011 0.995 0.004 0.23 0.66

9 25 4.013 0.927 983.87 1402.7 512.2 89.4 0.921 0.99 1.001 0.012 0.994 0.006 0.34 0.69

10 25 5.931 0.926 982.62 1402.7 511.7 89.4 0.921 0.99 1.000 0.011 0.995 0.004 0.22 0.68

11 25 3.849 0.926 981.81 1404.0 511.7 89.3 0.923 0.99 1.001 0.007 0.997 0.004 0.22 0.68

12 25 2.002 0.927 983.04 1405.1 512.7 89.6 0.920 0.99 1.000 0.012 0.994 0.006 0.37 0.70

13 25 0.070 0.927 982.84 1404.8 512.2 89.6 0.921 0.99 1.001 0.011 0.995 0.004 0.24 0.65

14 25 -1.947 0.926 982.56 1405.0 512.4 89.4 0.922 0.99 1.001 0.009 0.996 0.004 0.25 0.70

15 25 -3.594 0.927 983.00 1404.4 512.5 89.4 0.923 0.99 1.001 0.009 0.996 0.004 0.23 0.71

16 25 -5.982 0.927 983.03 1403.4 512.2 89.6 0.922 0.99 1.000 0.010 0.995 0.004 0.25 0.71

17 25 -8.015 0.926 983.66 1403.7 512.6 89.5 0.922 0.99 1.001 0.010 0.995 0.005 0.28 0.55

18 25 -9.946 0.927 983.49 1402.7 512.2 89.4 0.922 0.99 1.000 0.010 0.995 0.005 0.26 0.70

19 25 -11.593 0.926 982.01 1402.0 511.3 89.5 0.919 0.99 1.000 0.013 0.994 0.005 0.26 0.84

20 25 -13.946 0.927 982.93 1401.7 511.5 89.4 0.923 0.99 1.001 0.009 0.996 0.007 0.40 0.72

21 25 -16.003 0.927 983.17 1401.3 511.4 89.6 0.923 0.99 1.001 0.008 0.996 0.005 0.31 0.72

22 25 -17.943 0.927 983.07 1401.1 511.3 89.5 0.920 0.99 1.001 0.014 0.993 0.005 0.30 0.98

23 25 -19.949 0.926 982.80 1401.1 511.0 89.3 0.922 0.99 1.000 0.009 0.996 0.005 0.30 0.70

24 25 -21.972 0.927 982.86 1401.0 511.1 89.1 0.922 0.99 1.000 0.010 0.995 0.005 0.30 0.70

25 25 -23.504 0.926 982.88 1401.1 510.9 89.6 0.923 0.99 1.001 0.008 0.997 0.005 0.29 0.70

26 25 -25.941 0.926 982.40 1400.9 510.7 89.7 0.921 0.99 1.000 0.009 0.996 0.005 0.31 0.68

27 25 -27.904 0.925 981.76 1401.0 510.6 89.4 0.921 0.99 1.000 0.008 0.996 0.005 0.30 0.69

28 25 -30.055 0.926 981.44 1400.7 510.5 89.4 0.922 0.99 1.000 0.007 0.997 0.006 0.32 0.69

29 25 -32.000 0.926 982.69 1400.4 510.5 89.5 0.922 0.99 1.000 0.007 0.997 0.006 0.32 0.71

30 25 -33.954 0.925 981.72 1400.9 510.2 89.4 0.921 0.99 1.001 0.008 0.996 0.006 0.33 0.68

31 25 -35.905 0.926 981.78 1400.5 510.1 89.4 0.922 0.99 1.001 0.008 0.996 0.007 0.41 0.69

32 25 -37.906 0.926 981.90 1400.2 510.0 89.4 0.923 0.99 1.001 0.007 0.997 0.006 0.32 0.70

33 25 -39.901 0.925 981.75 1400.1 509.9 89.4 0.922 0.99 1.001 0.008 0.997 0.006 0.33 0.69

34 25 -39.901 0.925 981.75 1400.1 509.9 89.4 0.922 0.99 1.001 0.008 0.997 0.006 0.33 0.69

TEST	PART	WELU-6	ALPHA	WIND	YI	ZT	ROT	SURVEY	OUTER FLOW FIELD SURVEY SUMMARY										AEDC PROPUSSION WIND TUNNEL			
TF-44B	104	3.014	0.000	NONE	14.12	-0.04	I	10.3											TRANSONIC 161			
POINT	GP	AT	W	VI	PI	U	TI	PL	VTL/VW	PIL/PI	CPL	UT/VW	VI/VW	WI/VW	AATL	SWTL						
1	25	23.546	0.925	941.23	1473.7	509.5	49.4	0.916	0.99	1.001	0.014	0.994	0.016	0.003	0.19	0.90						
2	25	22.024	0.925	941.10	1460.7	510.1	49.4	0.914	0.99	1.001	0.012	0.995	0.015	0.003	0.17	0.86						
3	25	19.557	0.925	940.97	1452.7	510.6	49.5	0.919	0.99	1.001	0.012	0.995	0.016	0.004	0.23	0.90						
4	25	14.010	0.925	941.11	1446.4	511.6	49.5	0.919	0.99	1.001	0.013	0.994	0.016	0.004	0.23	0.91						
5	25	15.566	0.925	941.68	1446.4	511.6	49.4	0.916	0.99	1.001	0.015	0.993	0.015	0.004	0.21	0.88						
6	25	13.943	0.926	942.33	1442.7	511.5	49.4	0.922	1.00	1.000	0.008	0.996	0.016	-0.002	-0.14	0.93						
7	25	11.556	0.927	942.79	1431.1	511.3	49.3	0.921	0.99	1.001	0.014	0.994	0.016	0.005	0.27	0.94						
8	25	10.548	0.927	943.13	1419.4	510.9	49.3	0.920	0.99	1.000	0.014	0.993	0.017	0.005	0.27	0.94						
9	25	7.969	0.926	941.76	1411.4	509.6	49.3	0.914	0.99	1.000	0.013	0.994	0.016	0.004	0.24	0.95						
10	25	6.004	0.925	941.55	1417.2	509.2	49.3	0.920	1.00	1.001	0.011	0.995	0.017	0.004	0.23	0.96						
11	25	4.036	0.925	941.31	1417.1	509.1	49.2	0.914	0.99	1.000	0.011	0.995	0.016	0.004	0.23	0.95						
12	25	1.941	0.925	941.06	1414.4	509.3	49.4	0.921	1.00	1.001	0.008	0.997	0.016	0.004	0.25	0.94						
13	25	-0.013	0.925	940.63	1419.0	509.4	49.3	0.921	1.00	1.001	0.008	0.996	0.016	0.005	0.26	0.94						
14	25	-1.951	0.925	941.13	1400.2	510.0	49.2	0.921	1.00	1.001	0.008	0.997	0.016	0.004	0.25	0.93						
15	25	-3.574	0.925	941.24	1401.9	510.4	49.2	0.922	1.00	1.003	0.010	0.997	0.016	0.011	0.62	0.93						
16	25	-5.548	0.925	941.62	1402.3	510.9	49.4	0.922	1.00	1.001	0.007	0.997	0.016	0.005	0.27	0.93						

TEST PANT HEX10-0 ALPHA 4100 VI ZT RUN SURVEY
 TF-665 106 3.014 0.000 NONE 0.00 0.10 1 110

DATE 4-14-77
 AEDC PROPLUSION WIND TUNNEL
 TRANSONIC 1A1

WIND FLOW FIELD SURVEY SUMMARY

POINT	GP	AI	1	V ₀	MT	W	IT	ML	VTL/VM	PIL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SMTL
1	25	23.956	0.523	979.73	1478.8	508.5	89.5	0.915	0.99	1.000	0.014	0.993	0.016	0.002	0.11	0.93
2	25	22.060	0.523	979.46	1478.7	508.6	89.5	0.917	0.99	1.001	0.013	0.994	0.016	0.001	0.03	0.91
3	25	19.943	0.523	978.56	1477.4	507.4	89.1	0.916	0.99	1.000	0.013	0.994	0.016	-0.002	-0.14	0.90
4	25	17.937	0.523	980.07	1478.4	508.5	89.7	0.917	0.99	1.000	0.012	0.994	0.015	-0.006	-0.34	0.89
5	25	15.949	0.523	979.88	1478.2	508.5	89.4	0.918	1.00	1.001	0.011	0.995	0.015	-0.009	-0.51	0.89
6	25	13.949	0.524	980.21	1478.4	508.8	89.5	0.919	1.00	1.001	0.010	0.996	0.015	-0.008	-0.46	0.89
7	25	12.031	0.524	980.34	1479.4	509.0	89.7	0.916	0.99	1.000	0.014	0.993	0.015	-0.005	-0.26	0.88
8	25	10.010	0.524	980.77	1479.6	509.5	89.4	0.919	1.00	1.000	0.010	0.995	0.015	-0.007	-0.43	0.87
9	25	7.981	0.524	980.49	1479.5	509.4	89.3	0.920	1.00	1.000	0.009	0.996	0.016	-0.006	-0.35	0.92
10	25	5.998	0.525	981.27	1480.5	510.0	89.6	0.921	1.00	1.000	0.008	0.996	0.015	-0.005	-0.30	0.87
11	25	4.034	0.525	980.96	1480.6	510.0	89.3	0.921	1.00	1.000	0.008	0.996	0.015	-0.005	-0.30	0.84
12	25	2.000	0.524	980.65	1481.3	509.9	89.6	0.920	1.00	1.001	0.008	0.996	0.014	-0.005	-0.27	0.79
13	25	-2.174	0.524	980.78	1481.7	510.1	89.6	0.921	1.00	1.001	0.007	0.997	0.015	-0.005	-0.28	0.88
14	25	-4.002	0.524	980.08	1481.8	509.8	89.4	0.919	1.00	1.000	0.008	0.996	0.015	-0.005	-0.29	0.87
15	25	-6.003	0.524	980.10	1483.2	510.3	89.4	0.921	1.00	1.001	0.007	0.997	0.015	-0.005	-0.28	0.84

TEST PART MEX10-6 ALPHA WIND SURVEY
 TF-445 97 2.597 0.00 NONE -0.03 -14.18 1 101

DATE 4-14-77
 AEDC PROPULSION WIND TUNNEL
 TRANSONIC 16T

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	AT	M	VW	PI	U	TI	HL	VTL/VW	PTL/PT	CPL	UT/VM	VT/VM	WI/VM	AITL	SWTL
1 25	23.591	0.974	1025.15	1449.9	524.2	89.4	0.944	0.97	1.000	0.054	0.973	0.012	0.003	0.18	0.73
2 25	21.940	0.974	1025.08	1448.7	523.6	89.5	0.964	0.99	1.000	0.017	0.992	0.004	0.004	0.22	0.43
3 25	14.544	0.974	1025.03	1451.5	524.0	89.5	0.973	1.00	1.001	0.003	0.999	0.007	0.004	0.22	0.40
4 25	17.948	0.975	1025.60	1450.4	527.1	89.7	0.975	1.00	1.001	0.002	1.000	0.007	0.004	0.21	0.37
5 25	15.545	0.976	1027.38	1455.1	527.2	89.4	0.970	0.99	1.000	0.011	0.995	0.007	0.004	0.21	0.42
6 25	14.012	0.976	1026.41	1449.5	525.1	89.2	0.960	0.99	1.000	0.028	0.986	0.008	0.004	0.22	0.45
7 25	11.944	0.976	1025.85	1440.5	523.8	89.4	0.966	0.99	1.000	0.018	0.991	0.008	0.004	0.23	0.47
8 25	10.034	0.975	1025.94	1446.2	523.3	89.4	0.971	1.00	1.000	0.004	0.996	0.008	0.003	0.20	0.46
9 25	7.940	0.975	1025.64	1444.0	523.8	89.4	0.976	1.00	1.001	-0.000	1.001	0.007	0.004	0.25	0.40
10 25	6.024	0.974	1025.53	1452.6	525.3	89.5	0.978	1.00	1.001	-0.005	1.003	0.006	0.004	0.23	0.36
11 25	4.028	0.975	1026.33	1456.6	527.2	89.5	0.980	1.00	1.001	-0.006	1.004	0.006	0.004	0.23	0.35
12 25	2.025	0.976	1027.04	1457.4	527.4	89.5	0.977	1.00	1.001	-0.001	1.001	0.007	0.005	0.26	0.40
13 25	-0.010	0.975	1026.33	1453.7	526.2	89.4	0.970	1.00	1.000	0.010	0.995	0.008	0.004	0.25	0.45
14 25	-1.942	0.975	1026.49	1452.6	525.6	89.4	0.972	1.00	1.000	0.007	0.997	0.009	0.005	0.26	0.50
15 25	-4.007	0.975	1026.67	1450.9	525.2	89.6	0.973	1.00	1.000	0.004	0.998	0.008	0.004	0.24	0.45
16 25	-5.969	0.974	1025.29	1448.5	523.8	89.2	0.968	0.99	1.000	0.011	0.995	0.008	0.004	0.26	0.47

TEST PART WEX-106 ALFOU 0.00 HUNE -0.02 Y1 ZT MIN SURVEY
 4-14-77 DATE AEDC PROPULSION WIND TUNNEL
 TRANSONIC 1A1

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	AI	M	V _W	PT	Q	T1	PL	VTL/VW	PL/PT	CPL	UT/VW	VT/VW	WT/VW	AATL	SATL
1 25	23.572	0.976	1025.25	1450.6	526.5	89.1	0.964	0.99	1.000	0.017	0.991	0.011	0.004	0.23	0.61
5 25	23.576	0.975	1026.04	1453.0	526.0	89.4	0.967	0.99	1.001	0.015	0.993	0.011	0.003	0.20	0.62
6 25	21.556	0.975	1025.46	1452.3	525.5	89.4	0.962	0.99	1.001	0.023	0.949	0.011	0.003	0.20	0.61
7 25	19.574	0.976	1026.05	1451.6	525.5	89.4	0.970	1.00	1.001	0.010	0.945	0.011	0.005	0.31	0.61
8 25	17.590	0.975	1026.46	1451.6	525.4	89.6	0.975	1.00	1.001	0.002	1.000	0.011	0.004	0.21	0.64
9 25	16.025	0.976	1026.46	1452.0	525.9	89.4	0.972	1.00	1.001	0.008	0.997	0.011	0.006	0.34	0.64
10 25	13.956	0.976	1026.34	1453.2	526.3	89.4	0.977	1.00	1.001	0.008	0.996	0.011	0.004	0.22	0.65
11 25	12.022	0.976	1026.44	1454.1	526.6	89.4	0.977	1.00	1.001	-0.001	1.001	0.011	0.002	0.13	0.63
12 25	10.015	0.976	1026.73	1453.9	525.5	89.4	0.968	1.01	1.004	-0.016	1.010	0.011	0.004	0.22	0.60
13 25	7.993	0.975	1025.47	1453.9	525.9	89.2	0.970	1.00	1.001	0.009	0.996	0.011	0.004	0.22	0.65
14 25	6.024	0.975	1025.39	1452.9	525.6	89.5	0.971	1.00	1.000	0.007	0.996	0.012	0.004	0.25	0.66
15 25	4.017	0.974	1025.69	1452.0	525.1	89.6	0.966	0.99	1.000	0.015	0.992	0.011	0.004	0.24	0.63
16 25	1.993	0.974	1025.67	1451.4	524.9	89.5	0.969	1.00	1.000	0.010	0.995	0.011	0.004	0.23	0.64
17 25	-0.016	0.974	1025.29	1449.0	524.2	89.5	0.969	1.00	1.000	0.009	0.996	0.011	0.004	0.25	0.63
18 25	-2.024	0.974	1025.53	1450.0	524.6	89.4	0.975	1.00	1.001	0.001	1.000	0.011	0.005	0.26	0.64
19 25	-3.951	0.974	1024.65	1452.2	524.9	89.1	0.971	1.00	1.001	0.006	0.997	0.011	0.005	0.26	0.65
20 25	-5.964	0.975	1025.65	1454.8	526.2	89.4	0.973	1.00	1.001	0.003	0.999	0.010	0.004	0.24	0.60
21 25	-7.950	0.975	1026.40	1456.0	527.0	89.4	0.973	1.00	1.000	0.004	0.998	0.011	0.005	0.26	0.63
22 25	-10.007	0.975	1026.31	1456.2	527.0	89.5	0.971	1.00	1.001	0.008	0.997	0.012	0.005	0.27	0.67
23 25	-11.944	0.976	1026.76	1455.4	527.0	89.4	0.974	1.00	1.001	0.003	0.999	0.011	0.005	0.32	0.66
24 25	-13.945	0.976	1026.62	1456.4	526.4	89.3	0.972	1.00	1.000	0.007	0.997	0.011	0.005	0.27	0.63
25 25	-15.976	0.976	1026.49	1452.0	525.7	89.4	0.963	0.99	1.000	0.022	0.949	0.008	0.005	0.29	0.48
26 25	-18.003	0.976	1026.51	1450.4	525.1	89.4	0.964	0.97	1.002	0.058	0.972	0.011	0.019	1.13	0.67
27 25	-19.977	0.975	1025.66	1448.1	523.9	89.2	0.971	1.00	1.000	0.008	0.996	0.012	0.005	0.29	0.68
28 25	-21.973	0.974	1024.73	1448.4	523.6	89.3	0.974	1.00	1.000	0.000	1.000	0.009	0.005	0.30	0.53
29 25	-24.017	0.974	1025.21	1450.0	524.2	89.4	0.977	1.00	1.001	-0.004	1.003	0.011	0.005	0.26	0.63
30 25	-25.952	0.974	1025.12	1451.1	524.6	89.4	0.969	1.00	1.000	0.009	0.996	0.011	0.005	0.30	0.64
31 25	-27.950	0.974	1025.07	1452.3	524.9	89.5	0.974	1.00	1.001	0.000	1.000	0.010	0.005	0.31	0.55
32 25	-29.944	0.974	1025.62	1453.3	525.6	89.5	0.969	1.00	1.001	0.010	0.996	0.012	0.005	0.30	0.70
33 25	-32.042	0.974	1024.91	1453.6	525.4	89.3	0.976	1.00	1.000	-0.004	1.002	0.008	0.006	0.33	0.45
34 25	-33.960	0.974	1025.39	1453.6	525.6	89.4	0.973	1.00	1.000	0.002	0.999	0.011	0.006	0.34	0.63
35 25	-35.944	0.974	1025.37	1450.3	524.4	89.4	0.972	1.00	1.001	0.005	0.998	0.012	0.006	0.33	0.69
36 25	-38.011	0.974	1025.40	1451.1	524.6	89.6	0.943	0.97	0.997	0.049	0.973	0.011	0.003	0.18	0.65
37 25	-40.030	0.974	1024.92	1452.0	524.8	89.3	0.974	1.00	1.001	0.001	1.000	0.011	0.006	0.35	0.63
38 25	-42.021	0.974	1024.56	1453.5	525.2	89.2	0.974	1.00	1.001	0.000	1.000	0.010	0.006	0.33	0.59
39 25	-47.949	0.975	1025.93	1452.6	525.6	89.4	0.974	1.00	1.000	0.002	0.999	0.011	0.007	0.42	0.65
40 25	-17.986	0.975	1025.48	1448.7	524.1	89.4	0.966	0.99	1.000	0.015	0.992	0.011	0.005	0.30	0.65

TEST	PART	MEX10-6	ALFPH	ALPH	VT	ZT	WPM	SURVEY	DATE	AEDC	PROPULSION	WIND	TUNNEL			
1F-445	VM	3.004	0.000	NONE	14.13	-0.05	1	103	4-16-77	TRANSONIC	161					
OUTER FLOW FIELD SURVEY SUMMARY																
POINT	GM	AI	W	VM	PT	U	TT	AIL	VT/VM	PIL/PT	CPL	UT/VM	VT/VM	WI/VM	AAIL	SAIL
1	25	23.572	0.976	1025.25	1456.6	525.7	89.4	0.904	1.01	1.004	-0.012	1.008	0.014	0.003	0.19	0.82
2	25	22.009	0.976	1026.50	1456.2	526.5	89.4	0.965	0.99	1.000	0.019	0.990	0.016	0.004	0.21	0.90
3	25	20.016	0.977	1026.50	1456.8	526.8	89.2	0.964	0.99	1.000	0.024	0.988	0.015	0.002	0.13	0.87
4	25	18.016	0.977	1027.62	1456.5	525.4	89.3	0.944	0.97	1.000	0.058	0.971	0.021	0.004	0.22	1.22
5	25	15.988	0.976	1027.41	1457.9	528.6	89.5	0.976	0.99	1.001	0.012	0.994	0.015	0.004	0.21	0.85
6	25	14.001	0.977	1027.62	1457.0	528.3	89.4	0.972	1.00	1.001	0.010	0.996	0.015	0.004	0.22	0.87
7	25	12.020	0.976	1026.43	1446.5	523.5	89.3	0.970	0.99	1.001	0.011	0.995	0.015	0.004	0.24	0.87
8	25	10.039	0.975	1026.26	1446.6	524.6	89.5	0.972	1.00	1.001	0.011	0.997	0.014	0.004	0.21	0.83
9	25	7.988	0.976	1025.43	1452.1	525.8	89.5	0.975	1.00	0.999	0.001	0.999	0.014	0.000	0.02	0.82
10	25	6.029	0.976	1027.15	1452.5	526.1	89.5	0.972	1.00	1.000	0.008	0.997	0.015	0.005	0.26	0.86
11	25	3.970	0.977	1027.67	1453.1	526.6	89.5	0.974	1.00	1.000	0.006	0.997	0.015	0.004	0.22	0.86
12	25	2.027	0.976	1027.21	1451.7	525.9	89.5	0.974	1.00	1.001	0.005	0.998	0.015	0.004	0.23	0.88
13	25	0.001	0.976	1027.16	1450.9	525.5	89.7	0.972	1.00	1.001	0.008	0.996	0.015	0.003	0.18	0.89
14	25	-1.984	0.976	1026.56	1450.5	525.1	89.4	0.975	1.00	1.001	0.001	1.000	0.015	0.005	0.26	0.87
15	25	-4.006	0.975	1025.70	1451.8	525.2	89.3	0.979	1.00	1.001	-0.007	1.004	0.015	0.007	0.40	0.84
16	25	-5.984	0.974	1025.42	1453.3	525.5	89.5	0.974	1.00	1.001	0.001	1.000	0.014	0.005	0.30	0.82

TEST PAMT MEAL0-6 ALPHA MING DATE AEDC PROPUSSION WIND TUNNEL
1F-45 101 3.002 0.00 NONE 0.01 -14.17 1 101 4-14-77 TRANSONIC 141

WIND TUNNEL SURVEY SUMMARY

POINT	GP	AI	MI	VA	PT	W	IT	ML	VTL/VM	PIL/PT	CPL	UI/VM	VI/VM	WT/VM	AAVL	SWIL
1	25	23.970	1.025	1070.71	1433.5	541.1	89.0	1.006	0.93	1.001	0.032	0.984	0.006	0.004	0.21	0.33
2	25	21.946	1.025	1069.91	1433.4	540.7	89.7	1.002	0.98	1.000	0.038	0.981	0.004	0.004	0.25	0.34
3	25	19.542	1.024	1064.77	1432.7	540.0	89.4	0.987	0.97	1.000	0.061	0.970	0.017	0.004	0.24	0.69
4	25	18.020	1.025	1070.12	1434.2	541.1	89.7	0.992	0.97	0.999	0.052	0.973	0.005	0.004	0.22	0.28
5	25	16.004	1.025	1069.98	1434.1	541.0	89.8	1.005	0.98	1.000	0.033	0.984	0.006	0.004	0.22	0.35
6	25	14.004	1.026	1070.72	1434.4	541.4	89.8	1.005	0.98	1.000	0.034	0.983	0.006	0.004	0.22	0.36
7	25	11.949	1.027	1071.37	1435.1	542.1	89.7	1.000	0.98	1.000	0.043	0.979	0.004	0.004	0.26	0.24
8	25	9.976	1.027	1072.08	1435.7	542.5	89.9	1.002	0.98	1.001	0.042	0.980	0.005	0.005	0.28	0.31
9	25	7.996	1.028	1072.02	1435.4	542.6	89.5	1.006	0.98	1.001	0.036	0.983	0.006	0.004	0.24	0.35
10	25	5.994	1.026	1070.79	1435.1	541.8	89.7	1.003	0.98	1.001	0.039	0.981	0.005	0.004	0.26	0.31
11	25	3.997	1.026	1071.14	1435.0	542.2	89.6	1.003	0.98	1.001	0.036	0.982	0.005	0.004	0.22	0.50
12	25	1.998	1.026	1070.40	1435.9	542.1	89.6	1.004	0.98	1.001	0.036	0.982	0.005	0.004	0.22	0.31
13	25	0.005	1.026	1071.21	1436.7	542.5	89.8	1.011	0.99	1.001	0.026	0.988	-0.000	0.004	0.25	-0.00
14	25	-1.977	1.026	1070.99	1435.5	542.1	89.5	1.000	0.98	1.001	0.043	0.979	0.005	0.005	0.28	0.30
15	25	-4.015	1.027	1071.66	1434.5	542.0	89.7	1.002	0.98	1.000	0.040	0.980	0.006	0.005	0.29	0.36
16	25	-5.989	1.027	1071.93	1433.3	541.5	89.9	1.007	0.98	1.000	0.033	0.984	0.007	0.004	0.25	0.42

TEST POINT WIND TUNNEL
 DATE 4-14-77
 AEDC PROPUSSION WIND TUNNEL
 TRANSONIC INT

UNITED STATES FIELD SURVEY SUMMARY
 SURVEY 102
 ZT -0.10
 YI 0.00
 XI 0.00

POINT GP	AT	W	VP	PI	U	TI	HL	VTL/VW	PTL/PT	CPL	UT/VW	VI/VW	WI/VW	AATL	SWTL
1 25	23.980	1.025	1070.55	1433.5	541.2	89.8	1.007	0.99	1.000	0.030	0.985	0.013	0.003	0.20	0.79
2 25	22.041	1.026	1071.31	1432.2	540.9	89.8	1.006	0.98	1.001	0.035	0.983	0.009	0.003	0.20	0.52
3 25	19.983	1.026	1071.39	1430.9	540.4	89.9	1.003	0.98	1.001	0.034	0.981	0.009	0.003	0.16	0.50
4 25	18.009	1.027	1071.48	1430.5	540.3	89.8	1.005	0.98	1.001	0.036	0.983	0.008	0.003	0.20	0.49
5 25	15.983	1.026	1072.28	1431.1	541.0	89.6	1.002	0.98	1.001	0.042	0.979	0.011	0.004	0.21	0.62
6 25	14.029	1.027	1072.17	1432.8	541.8	89.7	1.005	0.98	1.000	0.038	0.981	0.010	0.004	0.21	0.57
7 25	11.992	1.026	1071.20	1433.8	541.4	89.8	1.007	0.98	1.001	0.032	0.985	0.010	0.004	0.23	0.58
8 25	10.046	1.025	1069.00	1435.3	541.3	90.0	1.003	0.98	1.001	0.036	0.982	0.009	0.004	0.25	0.54
9 25	7.980	1.026	1069.18	1436.2	541.4	89.8	1.005	0.98	1.001	0.032	0.984	0.010	0.004	0.23	0.56
10 25	6.031	1.026	1069.79	1436.0	541.3	89.8	1.001	0.98	1.000	0.037	0.981	0.010	0.004	0.22	0.59
11 25	4.053	1.026	1069.05	1435.0	541.0	89.6	1.000	0.98	1.000	0.040	0.980	0.010	0.004	0.26	0.61
12 25	2.014	1.026	1069.42	1434.6	540.5	89.9	1.002	0.98	1.000	0.036	0.982	0.010	0.004	0.22	0.59
13 25	0.017	1.025	1070.04	1432.7	540.3	90.1	0.999	0.98	1.000	0.042	0.979	0.009	0.005	0.27	0.53
14 25	-1.988	1.026	1069.12	1431.7	539.9	89.9	0.998	0.98	1.000	0.044	0.978	0.009	0.005	0.27	0.55
15 25	-3.972	1.025	1069.70	1430.3	539.5	89.5	0.999	0.98	1.001	0.042	0.979	0.010	0.004	0.23	0.57
16 25	-6.019	1.025	1069.61	1430.7	539.7	89.4	1.000	0.98	1.000	0.040	0.980	0.010	0.005	0.28	0.56
17 25	-7.956	1.025	1069.68	1431.4	539.9	89.5	1.002	0.98	1.001	0.038	0.981	0.009	0.005	0.30	0.55
18 25	-9.975	1.025	1070.27	1432.2	540.3	89.9	1.004	0.98	1.000	0.034	0.983	0.010	0.005	0.32	0.59
19 25	-11.972	1.025	1069.54	1432.3	540.3	89.7	1.005	0.98	1.001	0.034	0.984	0.010	0.004	0.23	0.58
20 25	-13.996	1.025	1069.55	1432.3	540.3	89.4	1.010	0.99	1.000	0.024	0.988	0.014	0.005	0.30	0.41
21 25	-15.992	1.025	1069.41	1433.0	540.4	89.5	1.006	0.98	1.000	0.031	0.985	0.011	0.005	0.30	0.63
22 25	-17.983	1.025	1069.96	1433.1	540.6	89.7	1.011	0.99	1.001	0.023	0.989	0.010	0.005	0.27	0.60
23 25	-20.022	1.025	1069.46	1433.3	540.7	89.7	1.012	0.99	1.001	0.022	0.989	0.010	0.005	0.31	0.57
24 25	-22.029	1.025	1069.41	1433.4	540.8	89.5	1.017	0.99	1.000	0.013	0.993	0.016	0.005	0.32	0.90
25 25	-24.981	1.025	1069.45	1432.9	540.4	89.8	1.002	0.98	1.000	0.037	0.982	0.006	0.006	0.34	0.36
26 25	-26.025	1.025	1070.25	1433.1	540.7	89.9	1.012	0.99	1.001	0.023	0.989	0.009	0.004	0.23	0.53
27 25	-27.987	1.025	1070.04	1432.3	540.4	89.7	1.008	0.99	1.000	0.028	0.986	0.009	0.004	0.45	0.53
28 25	-30.007	1.025	1069.98	1432.0	540.2	89.7	0.998	0.98	1.000	0.044	0.978	0.006	0.006	0.35	0.34
29 25	-31.990	1.025	1069.63	1431.9	540.2	89.5	0.996	0.98	1.000	0.048	0.976	0.005	0.006	0.34	0.27
30 25	-34.026	1.025	1069.74	1432.3	540.2	89.8	1.003	0.98	1.001	0.037	0.982	0.009	0.006	0.32	0.54
32 25	-35.987	1.024	1069.11	1432.6	540.1	89.5	0.998	0.98	1.000	0.043	0.978	0.008	0.006	0.32	0.49
33 25	-37.937	1.024	1069.66	1433.1	540.4	89.8	1.002	0.98	1.001	0.038	0.982	0.010	0.006	0.33	0.56
34 25	-39.981	1.024	1069.57	1433.5	540.6	89.7	1.001	0.98	1.001	0.038	0.981	0.010	0.006	0.33	0.56

10

TEST PART HEX10-0 ALFMD WIND VI ZT MUM SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-445 99 3.002 0.000 N000 14.13 -0.05 1 10.3 4-14-77 TRANSONIC 141

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	AI	AL	VI	W	IL	VTL/VM	PIL/PT	CPL	UI/VM	VI/VM	WI/VM	AATL	SWTL
1 25	24.022	1.024	1069.13	1436.1	89.5	0.996	1.000	0.046	0.977	0.014	0.003	0.17	0.81
2 25	21.944	1.024	1069.24	1443.2	89.4	1.014	1.001	0.018	0.992	0.013	0.003	0.18	0.72
3 25	20.044	1.024	1072.59	1449.0	89.3	1.017	1.001	0.019	0.991	0.013	0.003	0.17	0.73
4 25	18.014	1.024	1068.99	1426.8	89.4	0.986	1.000	0.041	0.969	0.016	0.003	0.20	0.94
5 25	16.002	1.026	1070.71	1431.5	89.6	1.005	1.001	0.035	0.983	0.010	0.003	0.20	0.56
6 25	14.001	1.026	1070.94	1435.0	89.8	1.001	1.001	0.041	0.980	0.011	0.003	0.20	0.67
7 25	12.027	1.026	1070.93	1435.2	89.6	1.003	1.000	0.039	0.961	0.014	0.004	0.25	0.82
8 25	10.000	1.026	1070.43	1435.0	89.5	1.007	1.000	0.031	0.985	0.014	0.004	0.25	0.80
9 25	8.001	1.026	1070.77	1434.3	89.3	1.006	1.001	0.034	0.983	0.013	0.004	0.23	0.77
10 25	5.941	1.023	1068.42	1432.6	89.4	1.004	1.001	0.033	0.984	0.014	0.003	0.20	0.81
11 25	3.941	1.026	1070.13	1432.3	89.5	1.002	1.001	0.039	0.981	0.013	0.004	0.23	0.78
12 25	1.974	1.025	1070.18	1432.0	89.8	1.002	1.001	0.038	0.981	0.013	0.004	0.24	0.77
13 25	-0.000	1.025	1069.93	1431.9	89.6	1.002	1.001	0.039	0.981	0.013	0.004	0.24	0.78
14 25	-1.965	1.025	1069.58	1431.8	89.5	1.001	1.001	0.039	0.981	0.013	0.005	0.27	0.76
15 25	-3.985	1.024	1069.00	1432.0	89.4	0.997	1.001	0.046	0.978	0.012	0.004	0.25	0.69
16 25	-5.974	1.025	1069.66	1433.3	89.7	0.998	1.000	0.043	0.978	0.012	0.005	0.28	0.71

TEST PART M PT P REL10-6 VM U TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-445 9 0.800 1573.0 1032.4 3.005 564.2 461.97 89.20 4 PCT 7 701 4-12-77 TRANSONIC 161

ALF=M	CN	CY	CA	CLM	CLN	CLL	CAF	CAB
5.42	0.5150	0.0018	0.0175	0.0428	0.0005	0.0014	0.0072	0.0103
2.13	0.2024	0.0006	0.0238	0.0193	0.0003	0.0025	0.0143	0.0095
-0.06	0.0106	-0.0000	0.0275	0.0020	0.0000	0.0027	0.0184	0.0091
-2.25	-0.1772	-0.0006	0.0259	-0.0156	-0.0001	0.0033	0.0170	0.0090
-5.57	-0.4942	-0.0020	0.0209	-0.0388	-0.0006	0.0037	0.0120	0.0089

TEST PART M PT P HEADU-B V1 M HEADU-B V2 WIND TUNNEL SURVEY DATE AEDC PROPULSION WIND TUNNEL
 14-445 9 0.000 1573.0 1032.4 3.005 004.2 441.97 09.20 4 PCT 7.701 4-12-77 TRANSONIC 16T

ORIFICE PRESSURE COEFFICIENTS ALFMA=5.42 ALFMA=2.13 ALFMA=0.06 ALFMA=2.25 ALFMA=5.57

1	CPS 1=	-0.0413	-0.0059	-0.0272	0.0576	0.1132	0.0398
2	CPS 2=	-0.0918	-0.0636	-0.0359	-0.0084	-0.0743	-0.0710
3	CPS 3=	-0.1297	-0.1101	-0.0847	-0.0644	-0.0432	-0.0247
4	CPS 4=	-0.1460	-0.1362	-0.1219	-0.1122	-0.0919	-0.0757
5	CPS 5=	-0.1321	-0.1311	-0.1214	-0.0500	-0.0323	0.0650
6	CPS 6=	-0.0627	-0.0634	-0.0565	-0.0181	0.0146	0.1015
7	CPS 7=	-0.0660	-0.0648	-0.0494	-0.0048	0.0347	0.1109
8	CPS 8=	-0.0476	-0.0316	-0.0048	-0.0043	0.1024	0.0823
9	CPS 9=	-0.0742	-0.0344	-0.0075	-0.0243	0.0061	0.0735
10	CPS 10=	-0.1232	-0.0452	-0.0075	-0.0396	0.0140	0.0482
11	CPS 11=	-0.1614	-0.0624	-0.0043	-0.0470	-0.0196	0.0337
12	CPS 12=	-0.1824	-0.0769	-0.0243	-0.0415	-0.0205	0.0225
13	CPS 13=	-0.1856	-0.0419	-0.0342	-0.0238	0.0094	0.0225
14	CPS 14=	-0.1665	-0.0877	-0.0396	0.0005	0.0323	0.0304
15	CPS 15=	-0.1544	-0.0414	-0.0494	0.0103	0.0164	0.0262
16	CPS 16=	-0.1293	-0.0411	-0.0470	0.0127	0.0169	0.0183
17	CPS 17=	-0.0945	-0.0652	-0.0415	0.0071	0.0089	0.0164
18	CPS 18=	-0.0618	-0.0396	-0.0238	0.0066	0.0019	0.0108
19	CPS 19=	-0.0231	-0.0102	0.0005	-0.0019	-0.0033	-0.0257
20	CPS 20=	-0.0036	0.0038	0.0103	-0.0303	-0.0289	
21	CPS 21=	0.0039	0.0085	0.0127			
22	CPS 22=	0.0029	0.0044	0.0071			
23	CPS 23=	0.0043	0.0048	0.0066			
24	CPS 24=	-0.0003	-0.0018	0.0019			
25	CPS 25=	-0.0329	-0.0321	-0.0303			

TEST PART M PT P REX10-6 VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 10 0.820 1530.1 954.2 3.002 912.5 482.37 0 90.00 4 PCT 0 0 5-24-77 IRANSONIC-16T

ALF/M	CN	CY	CA	CLM	CLN	CLL	CAF	CAB
-5.61	-0.5153	-0.0017	0.0211	-0.0376	-0.0005	0.0036	0.0124	0.0087
-2.29	-0.1882	-0.0005	0.0251	-0.0154	-0.0001	0.0035	0.0162	0.0088
-0.08	0.0084	0.0002	0.0272	0.0012	0.0001	0.0030	0.0183	0.0089
2.15	0.2103	0.0008	0.0236	0.0184	0.0004	0.0025	0.0144	0.0092
5.49	0.5342	0.0020	0.0180	0.0402	0.0005	0.0018	0.0080	0.0100

TEST PART M PT P REX10-6 VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 YF-445 10 0.850 1530.1 954.2 3.002 912.5 482.37 90.00 4 PCT 0 0 5-24-77 TRANSONIC 161

PRESSURE COEFFICIENTS CPS=PS-P)/Q

ORIFICE ALFHM=-5.61 ALFHM=-2.29 ALFHM=-0.08 ALFHM= 2.15 ALFHM= 5.49

1	CPS 1=	0.1275	0.0699	0.0368	0.0660	-0.0348
2	CPS 2=	0.0445	-0.0061	-0.0355	-0.0604	-0.0921
3	CPS 3=	-0.0237	-0.0682	-0.0936	-0.1124	-0.1284
4	CPS 4=	-0.0713	-0.1094	-0.1294	-0.1407	-0.1521
5	CPS 5=	-0.0861	-0.1174	-0.1307	-0.1349	-0.1355
6	CPS 6=	-0.0219	-0.0486	-0.0583	-0.0604	-0.0581
7	CPS 7=	-0.0241	-0.0401	-0.0619	-0.0613	-0.0563
8	CPS 8=	0.0392	0.0020	-0.0141	-0.0236	-0.0334
9	CPS 9=	0.0741	0.0239	-0.0025	-0.0250	-0.0607
10	CPS 10=	0.1071	0.0435	0.0024	-0.0375	-0.1167
11	CPS 11=	0.1249	0.0525	-0.0007	-0.0564	-0.1669
12	CPS 12=	0.1123	0.0355	-0.0146	-0.0788	-0.1996
13	CPS 13=	0.0939	0.0167	-0.0364	-0.0945	-0.2067
14	CPS 14=	0.0822	0.0100	-0.0405	-0.0936	-0.1866
15	CPS 15=	0.0526	-0.0119	-0.0583	-0.1026	-0.1736
16	CPS 16=	0.0355	-0.0195	-0.0570	-0.0914	-0.1431
17	CPS 17=	0.0212	-0.0226	-0.0503	-0.0730	-0.1087
18	CPS 18=	0.0203	-0.0092	-0.0280	-0.0416	-0.0634
19	CPS 19=	0.0337	0.0149	0.0029	-0.0053	-0.0173
20	CPS 20=	0.0342	0.0221	0.0149	0.0113	0.0046
21	CPS 21=	0.0311	0.0230	0.0181	0.0163	0.0127
22	CPS 22=	0.0221	0.0158	0.0127	0.0122	0.0104
23	CPS 23=	0.0203	0.0127	0.0114	0.0104	0.0104
24	CPS 24=	0.0158	0.0069	0.0047	0.0046	0.0055
25	CPS 25=	-0.0219	-0.0267	-0.0271	-0.0268	-0.0276

TEST PART M PT P REX10-6 VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TE-445 11 0.930 1494.6 883.7 3.001 939.3 501.03 0 90.30 4 PCT 0 0 5-24-77 TRANSONIC 161

ALPH	CN	CY	CA	CLM	CLN	CLL	CAF	CAB
5.93	0.5627	0.0023	0.0185	0.0353	0.0005	0.0023	0.0087	0.0090
2.17	0.2216	0.0010	0.0240	0.0174	0.0003	0.0029	0.0151	0.0090
-0.08	0.0359	0.0006	0.0279	0.0011	0.0001	0.0029	0.0191	0.0088
-2.29	-0.1991	-0.0003	0.0280	-0.0145	-0.0001	0.0035	0.0174	0.0086
-5.12	-0.4944	-0.0012	0.0215	-0.0291	-0.0003	0.0038	0.0128	0.0087

TEST PART M PT P REX10-6 V4 Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 11 0.930 1494.6 883.7 3.001 959.3 501.73 90.30 4 PCT 0 0 5-24-77 TRANSONIC 16T

PRESSURE COEFFICIENTS CPS=(PS-P)/Q

ORIFICE	ALFWM=5.93	ALFWM=2.17	ALFWM=0.08	ALFWM=2.29	ALFWM=5.12
1 CPS 1=	-0.0337	0.0057	0.0359	0.0704	0.1221
2 CPS 2=	-0.0942	-0.0496	-0.0433	-0.0063	0.0376
3 CPS 3=	-0.1435	-0.1230	-0.1023	-0.0779	-0.0378
4 CPS 4=	-0.1643	-0.1580	-0.1458	-0.1279	-0.0947
5 CPS 5=	-0.1427	-0.1494	-0.1470	-0.1370	-0.1128
6 CPS 6=	-0.0501	-0.0634	-0.0592	-0.0542	-0.0357
7 CPS 7=	-0.0397	-0.0539	-0.0571	-0.0512	-0.0309
8 CPS 8=	-0.0133	-0.0150	-0.0089	0.0049	0.0350
9 CPS 9=	-0.0367	-0.0142	0.0058	0.0307	0.0734
10 CPS 10=	-0.1003	-0.0319	0.0161	0.0544	0.1174
11 CPS 11=	-0.1638	-0.0569	0.0023	0.0553	0.1247
12 CPS 12=	-0.2136	-0.0837	-0.0166	0.0406	0.1126
13 CPS 13=	-0.2469	-0.1105	-0.0403	0.0178	0.0894
14 CPS 14=	-0.2564	-0.1183	-0.0498	0.0062	0.0760
15 CPS 15=	-0.2612	-0.1299	-0.0700	-0.0188	0.0437
16 CPS 16=	-0.1764	-0.1222	-0.0756	-0.0326	0.0230
17 CPS 17=	-0.1292	-0.0949	-0.0683	-0.0382	0.0044
18 CPS 18=	-0.0631	-0.0466	-0.0356	-0.0184	0.0079
19 CPS 19=	-0.0099	0.0001	0.0053	0.0143	0.0290
20 CPS 20=	0.0165	0.0225	0.0247	0.0286	0.0355
21 CPS 21=	0.0247	0.0269	0.0231	0.0316	0.0355
22 CPS 22=	0.0208	0.0212	0.0213	0.0238	0.0264
23 CPS 23=	0.0197	0.0174	0.0174	0.0200	0.0234
24 CPS 24=	0.0126	0.0109	0.0105	0.0122	0.0178
25 CPS 25=	-0.0220	-0.0215	-0.0218	-0.0210	-0.0184

TEST PART M PT P REX10-6 VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 12 0.923 1477.3 851.5 2.995 980.6 504.11 0 90.30 4 PCT 0 0 5-24-77 TRANSONIC 167

ALF/M	CN	CY	CA	CLM	CLN	CLL	CAF	CAB
-5.16	-0.5302	-0.0011	0.0206	-0.0152	-0.0004	0.0042	0.0118	0.0088
-2.30	-0.2081	-0.0000	0.0255	-0.0119	-0.0000	0.0033	0.0168	0.0088
-0.08	0.0078	0.0006	0.0275	0.0021	0.0001	0.0029	0.0187	0.0088
2.18	0.2320	0.0011	0.0236	0.0162	0.0004	0.0026	0.0146	0.0090
4.89	0.5556	0.0013	0.0174	0.0211	0.0010	0.0047	0.0079	0.0095

TEST PART M PT P REX10-6 VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 YF-445 12 0.923 1477.3 851.5 2.995 980.6 508.11 90.30 4 PCT 0 0 5-24-77 TRANSONIC-16T

PRESSURE COEFFICIENTS CPS=(PS-P)/Q

ORIFICE ALFHM=-5.16 ALFHM=-2.39 ALFHM=-0.08 ALFHM=2.18 ALFHM=4.89

1	CPS 1=	0.1277	0.0824	0.0465	0.0143	-0.0227
2	CPS 2=	0.0405	-0.0035	-0.0336	-0.0807	-0.0878
3	CPS 3=	-0.0411	-0.0797	-0.1052	-0.1276	-0.1464
4	CPS 4=	-0.1004	-0.1338	-0.1514	-0.1674	-0.1758
5	CPS 5=	-0.1228	-0.1487	-0.1590	-0.1628	-0.1524
6	CPS 6=	-0.0361	-0.0560	-0.0607	-0.0598	-0.0499
7	CPS 7=	-0.0301	-0.0517	-0.0548	-0.0514	-0.0355
8	CPS 8=	0.0401	0.0075	-0.0039	-0.0086	-0.0027
9	CPS 9=	0.0820	0.0308	0.0130	-0.0014	-0.0214
10	CPS 10=	0.1171	0.0685	0.0262	-0.0171	-0.0699
11	CPS 11=	0.1344	0.0651	0.0130	-0.0463	-0.1277
12	CPS 12=	0.1222	0.0477	-0.0094	-0.0789	-0.1766
13	CPS 13=	0.0972	0.0240	-0.0353	-0.1064	-0.2106
14	CPS 14=	0.0799	0.0113	-0.0484	-0.1213	-0.2255
15	CPS 15=	0.0460	-0.0208	-0.0772	-0.1488	-0.2553
16	CPS 16=	0.0215	-0.0395	-0.0904	-0.1560	-0.2752
17	CPS 17=	-0.0014	-0.0505	-0.0874	-0.1251	-0.2544
18	CPS 18=	0.0029	-0.0268	-0.0433	-0.0501	-0.0593
19	CPS 19=	0.0308	0.0143	0.0079	0.0075	0.0147
20	CPS 20=	0.0431	0.0329	0.0304	0.0316	0.0406
21	CPS 21=	0.0443	0.0350	0.0346	0.0346	0.0453
22	CPS 22=	0.0350	0.0266	0.0262	0.0291	0.0355
23	CPS 23=	0.0291	0.0219	0.0206	0.0223	0.0279
24	CPS 24=	0.0211	0.0147	0.0139	0.0139	0.0185
25	CPS 25=	-0.0162	-0.0196	-0.0192	-0.0192	-0.0163

TEST PART M P MACH VM Q TT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 13 0.950 1470.5 822.2 3.010 1005.2 519.98 0 90.40 4 PCT 7 701 4-12-77 TRANSONIC INT

ALFNM	CN	CY	CA	CLM	CLN	CLL	CAF	CAH
5.02	0.5710	0.0027	0.0222	0.0028	0.0004	0.0024	0.0127	0.0095
2.18	0.2430	0.0013	0.0270	0.0072	0.0004	0.0023	0.0180	0.0090
-0.07	0.0043	0.0008	0.0300	0.0019	0.0002	0.0025	0.0211	0.0089
-2.31	-0.2180	0.0000	0.0290	-0.0041	-0.0001	0.0037	0.0202	0.0089
-5.15	-0.5424	-0.0010	0.0262	0.0017	-0.0002	0.0031	0.0175	0.0087

TEST PANT M PT P MCALU-6 VM U TT WIND HUN SURVEY DATE AEDC PHUPULSION WIND TUNNEL

7F-445 13 0.950 1470.5 H22.2 3.010 1005.2 519.94 90.40 4 PCT 7 701 4-12-77 TRANSONIC 16T

ORIFICE ALFWM=5.02 ALFWM=2.18 ALFWM=0.07 ALFWM=2.31 ALFWM=5.15

1	CPS 1=	-0.0152	0.0154	0.0471	0.0811	0.1314
2	CPS 2=	-0.0547	-0.0579	-0.0329	-0.0016	-0.0445
3	CPS 3=	-0.1334	-0.1345	-0.1134	-0.0854	-0.0456
4	CPS 4=	-0.1082	-0.1411	-0.1671	-0.1477	-0.1129
5	CPS 5=	-0.1440	-0.2244	-0.2244	-0.2070	-0.1698
6	CPS 6=	-0.20336	-0.0412	-0.0463	-0.0414	-0.0323
7	CPS 7=	-0.0149	-0.0366	-0.0450	-0.0335	-0.0240
8	CPS 8=	0.0150	0.0038	0.0033	0.0163	0.0466
9	CPS 9=	0.0033	0.0080	0.0136	0.0458	0.0894
10	CPS 10=	-0.0420	-0.0104	0.0355	0.0742	0.1297
11	CPS 11=	-0.1094	-0.0366	0.0175	0.0748	0.1422
12	CPS 12=	-0.1622	-0.0687	-0.0046	0.0557	0.1297
13	CPS 13=	-0.1491	-0.1024	-0.0350	0.0279	0.1015
14	CPS 14=	-0.2167	-0.1199	-0.0513	0.0113	0.0432
15	CPS 15=	-0.2477	-0.1507	-0.0809	-0.0223	0.0458
16	CPS 16=	-0.2707	-0.1765	-0.1040	-0.0509	0.0105
17	CPS 17=	-0.2954	-0.2053	-0.1418	-0.0896	-0.0319
18	CPS 18=	-0.3164	-0.1494	-0.1064	-0.0783	-0.0473
19	CPS 19=	-0.0671	-0.0012	0.0054	0.0034	-0.0011
20	CPS 20=	0.0506	0.0471	0.0396	0.0383	0.0308
21	CPS 21=	0.0640	0.0529	0.0451	0.0458	0.0437
22	CPS 22=	0.0607	0.0421	0.0359	0.0366	0.0408
23	CPS 23=	0.0464	0.0313	0.0244	0.0292	0.0371
24	CPS 24=	0.0309	0.0200	0.0188	0.0209	0.0288
25	CPS 25=	-0.0076	-0.0150	-0.0163	-0.0148	-0.0099

TEST PART M WT P MEALURE VII U IT WING MIN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 14 0.974 1451.1 140.0 2.994 1026.0 524.34 50.30 4 PCT 7 701 4-12-77 TRANSONIC 167

ALFNM	CW	CY	CA	CL4	CLN	CLL	CAF	CAB
-5.15	-0.5554	-0.0004	0.0330	0.0235	-0.0004	0.0037	0.0252	0.0078
-2.32	-0.2225	0.0002	0.0367	0.0031	-0.0000	0.0032	0.0279	0.0089
-0.07	0.0101	0.0007	0.0379	0.0010	0.0001	0.0024	0.0289	0.0089
2.19	0.2486	0.0015	0.0350	0.0002	0.0004	0.0020	0.0260	0.0090
5.03	0.5889	0.0026	0.0292	-0.0214	0.0004	0.0022	0.0201	0.0091

TEST PART M PT P HEALU-6 VM U IT #ING HUM SURVEY DATE AEDC PROPULSION WIND TUNNEL
 IF-445 15 1.001 1444.1 762.3 3.001 1049.6 534.31 90.50 4 PCT 7 701 4-12-77 TRANSONIC 151

ALF-M	CM	CT	CA	CLM	CLN	CLL	CAF	CAH
5.04	0.590A	0.0026	0.0382	-0.0252	0.0004	0.0022	0.0235	0.0147
2.19	0.252A	0.0015	0.0416	-0.0059	0.0003	0.0022	0.0298	0.011A
-0.06	0.0110	0.000A	0.0451	0.0013	0.0001	0.0024	0.0331	0.0119
-2.32	-0.2286	0.0001	0.0462	0.0090	-0.0000	0.0031	0.0332	0.0130
-5.15	-0.5532	-0.0007	0.0429	0.0270	-0.0003	0.0038	0.0282	0.0147

TEST	PART	P	PT	M	HEAD	W	IT	WING	RUN	SURVEY	DATE	AEDC	PROPULSION	WIND	TUNNEL
TP-445	15	1.001	1466.1	7-2.3	3.001	1044.6	534.31	90.50	4 PCT	7	701	4-12-77			
ORIFICE		PRESSURE		COEFFICIENTS		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504	
		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504		ALF=0.504	
1	CPS 1=	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
2	CPS 2=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
3	CPS 3=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
4	CPS 4=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
5	CPS 5=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
6	CPS 6=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
7	CPS 7=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
8	CPS 8=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
9	CPS 9=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
10	CPS 10=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
11	CPS 11=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
12	CPS 12=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
13	CPS 13=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
14	CPS 14=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
15	CPS 15=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
16	CPS 16=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
17	CPS 17=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
18	CPS 18=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
19	CPS 19=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
20	CPS 20=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
21	CPS 21=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
22	CPS 22=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
23	CPS 23=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
24	CPS 24=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
25	CPS 25=	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001

TEST PART M PT P MEALU-0 VM U TT WING HUI SURVLY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 16 1.024 1433.9 736.2 2.994 1870.6 540.65 90.90 4 PCT 7 701 4-12-77 TRANSONIC 16T

ALFWM	CM	CY	CA	CLM	CLN	CLL	CAF	CAR
-5.15	-0.5500	-0.0004	0.0456	0.0294	-0.0003	0.0034	0.0296	0.0160
-2.33	-0.2288	0.0001	0.0288	0.0104	0.0001	0.0027	0.0333	0.0155
-0.07	0.0108	0.0008	0.0500	0.0017	0.0001	0.0027	0.0344	0.0156
2.19	0.2510	0.0016	0.0477	-0.0068	0.0004	0.0017	0.0316	0.0160
5.06	0.5867	0.0024	0.0427	-0.0273	0.0005	0.0018	0.0251	0.0176

TEST PART M WT M KEAL0-6 VM U IT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 TF-445 16 1.074 1433.5 736.2 2.996 1070.6 540.65 90.90 4 PCI 7 701 4-12-77 TRANSONIC 16T

ORIFICE ALFAME=5.15 ALFAME=2.33 ALFAME=0.07 ALFAME=2.19 ALFAME=5.06

1	CPS 1=	0.1946	0.1537	0.1229	0.0916	0.0535
2	CPS 2=	0.1054	0.0663	0.0341	0.0143	-0.0152
3	CPS 3=	0.0194	-0.0128	-0.0147	-0.0570	-0.0843
4	CPS 4=	-0.0565	-0.0466	-0.1045	-0.1149	-0.1406
5	CPS 5=	-0.1215	-0.1449	-0.1592	-0.1753	-0.1838
6	CPS 6=	-0.1804	-0.1940	-0.1999	-0.1996	-0.1998
7	CPS 7=	-0.1192	-0.1444	-0.1835	-0.1741	-0.1662
8	CPS 8=	-0.1203	-0.1221	-0.1189	-0.1080	-0.0811
9	CPS 9=	0.0677	-0.0658	-0.0710	-0.0510	0.0176
10	CPS 10=	0.1763	0.0934	0.0431	0.0231	0.0276
11	CPS 11=	0.2096	0.1214	0.0666	0.0211	-0.0244
12	CPS 12=	0.1588	0.1126	0.0499	-0.0060	-0.0735
13	CPS 13=	0.1763	0.0926	0.0307	-0.0299	-0.1059
14	CPS 14=	0.1587	0.0787	0.0164	-0.0442	-0.1235
15	CPS 15=	0.1214	0.0471	-0.0164	-0.0757	-0.1542
16	CPS 16=	0.0448	0.0208	-0.0399	-0.0984	-0.1750
17	CPS 17=	0.0461	-0.0147	-0.0674	-0.1251	-0.1998
18	CPS 18=	-0.0044	-0.0563	-0.1073	-0.1586	-0.2293
19	CPS 19=	-0.0457	-0.0954	-0.1448	-0.1944	-0.2589
20	CPS 20=	-0.0410	-0.1749	-0.1632	-0.2144	-0.2881
21	CPS 21=	-0.0565	-0.0602	-0.0650	-0.0928	-0.1410
22	CPS 22=	-0.0425	-0.0239	-0.0112	-0.0108	-0.0196
23	CPS 23=	-0.0213	0.0072	0.0148	0.0143	0.0156
24	CPS 24=	-0.0096	0.0104	0.0152	0.0135	0.0136
25	CPS 25=	-0.0209	-0.0096	-0.0064	-0.0104	-0.0128

TEST	PART	M	PT	P	VM	U	IT	WING	RUN	SURVEY	DATE	AEDC	PROPULSION	WIND	TUNNEL
TF-445	17	1.051	124.1	710.3	3.000	1093.3	99.906	90.80	4	PCT	701	4-12-77	TRANSONIC	16T	
ALPHM	CM	CT	CA	CLM	CLN	CLL	CAF	CAH							
5.06	0.5775	0.0024	0.0445	-0.0284	0.0005	0.0019	0.0261	0.0184							
2.21	0.2564	0.0013	0.0492	-0.0087	0.0004	0.0021	0.0318	0.0174							
-0.07	0.0115	0.0006	0.0520	0.0005	0.0002	0.0023	0.0350	0.0170							
-2.31	-0.2214	-0.0002	0.0502	0.0128	0.0001	0.0031	0.0339	0.0163							
-5.16	-0.5454	-0.0010	0.0474	0.0340	-0.0002	0.0039	0.0310	0.0164							

TEST	PART	H	WT	P	MEX10-6	V-1	W	IT	WING	RUN	SURVEY	DATE	AEDC PROPULSION WIND TUNNEL
TF-45	17	1.051	1424.1	710.3	3.000	1043.3	549.06	90.80	4	PCT	7	701	4-12-77
ORIFICE		PRESSURE		COEFFICIENTS		CPS = (P5-P4)/D		ALF = 0.07		ALFWM = -2.31		ALFWM = -5.16	
		ALF = 5.06		ALFWM = 2.21									
1	CPS 1 =	0.0525	0.0861	0.1182	0.1524	0.1999							
2	CPS 2 =	-0.0055	0.0702	0.0402	0.0743	0.1169							
3	CPS 3 =	-0.0670	-0.0497	-0.0279	-0.0627	0.0312							
4	CPS 4 =	-0.1231	-0.1144	-0.0275	-0.0789	-0.0495							
5	CPS 5 =	-0.1649	-0.1609	-0.1447	-0.1353	-0.1120							
6	CPS 6 =	-0.1745	-0.1497	-0.1445	-0.1819	-0.1671							
7	CPS 7 =	-0.1534	-0.1445	-0.1684	-0.1705	-0.1687							
8	CPS 8 =	-0.0903	-0.1053	-0.1089	-0.1128	-0.1105							
9	CPS 9 =	-0.0363	-0.0702	-0.0746	-0.0876	-0.0865							
10	CPS10 =	0.0046	-0.0134	-0.0046	0.0356	0.1511							
11	CPS11 =	-0.0296	0.0004	0.0461	0.0995	0.1956							
12	CPS12 =	-0.0741	-0.0173	0.0426	0.1047	0.1941							
13	CPS13 =	-0.1049	-0.0422	0.0201	0.0865	0.1771							
14	CPS14 =	-0.1151	-0.0560	0.0064	0.0747	0.1622							
15	CPS15 =	-0.1412	-0.0777	-0.0168	0.0502	0.1327							
16	CPS16 =	-0.1574	-0.1009	-0.0416	0.0301	0.1035							
17	CPS17 =	-0.1791	-0.1230	-0.0680	-0.0007	0.0642							
18	CPS18 =	-0.2043	-0.1447	-0.0967	-0.0374	0.0209							
19	CPS19 =	-0.2327	-0.1751	-0.1266	-0.0730	-0.0192							
20	CPS20 =	-0.2655	-0.1984	-0.1511	-0.1073	-0.0597							
21	CPS21 =	-0.1613	-0.0970	-0.0700	-0.0619	-0.0491							
22	CPS22 =	-0.0410	-0.0169	-0.0157	-0.0355	-0.0385							
23	CPS23 =	0.0142	0.0150	0.0131	-0.0074	-0.0184							
24	CPS24 =	0.0162	0.0131	0.0139	-0.0031	-0.0129							
25	CPS25 =	-0.0106	-0.0082	-0.0074	-0.0193	-0.0223							

AEDC PROPULSION WIND TUNNEL TRANSONIC 16T

TEST PART M DT P REA10-6 VM U TT WING HUN SURVEY DATE
TF-405 1A 1.100 1413.5 661.7 3.005 1133.2 560.84 89.20 4 PCT 7 Jul 4-12-77

ALF _{REF}	CN	CY	CA	CLM	CLN	CLL	CAF	CAH
-5.16	-0.5367	-0.0010	0.0475	0.0429	-0.0004	0.0039	0.0315	0.0160
-2.33	-0.2296	0.0002	0.0500	0.0177	-0.0007	0.0033	0.0341	0.0159
-0.08	0.0046	0.0009	0.0510	0.0014	-0.0006	0.0027	0.0347	0.0163
2.19	0.2477	0.0013	0.0499	-0.0146	-0.0003	0.0022	0.0327	0.0172
5.02	0.5569	0.0025	0.0462	-0.0373	-0.0003	0.0012	0.0281	0.0182

AEDC PROPULSION WIND TUNNEL TRANSONIC 16T

DATE 4-12-77

WING MUM SURVEY

7 701

4 PCT

IT WING

89.20

2.19

ALFAME

5.02

ALFAME

0.08

CPS=(P5-P4)/Q

3.005

113.2

560.84

U

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0.0529

0.0117

-0.0426

-0.0957

-0.1362

-0.1601

-0.1369

-0.0842

-0.0561

-0.0241

-0.0372

-0.0715

-0.0934

-0.1042

-0.1285

-0.1416

-0.1608

-0.1866

-0.2097

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-0.1916

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0.0287

0.0067

0.0060

0.0032

-0.0006

-0.0129

-0.0091

-0.0415

-0.1052

-0.1381

-0.1871

-0.1547

-0.1269

-0.0987

-0.0755

-0.0570

-0.0323

-0.0257

-0.0130

-0.0076

-0.0369

-0.0728

-0.0401

-0.0431

0.0225

0.0349

0.0330

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-0.0701

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-1.1410

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-1.3140

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-1.4178

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-1.8330

-1.8676

-1.9022

-1.9368

-1.9714

-2.0060

-2.0406

-2.0752

-2.1098

-2.1444

-2.1790

-2.2136

-2.2482

-2.2828

-2.3174

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-4.9470

-4.9816

-5.0162

-5.0508

-5.0854

-5.1200

-5.1546

-5.1892

-5.2238

-5.2584

-5.2930

-5.3276

-5.3622

-5.3968

-5.4314

-5.4660

-5.5006

-5.5352

-5.5698

-5.6044

-5.6390

-5.6736

-5.7082

-5.7428

-5.7774

-5.8120

-5.8466

-5.8812

-5.9158

-5.9504

-5.9850

-6.0196

-6.0542

-6.0888

-6.1234

-6.1580

-6.1926

-6.2272

-6.2618

-6.2964

-6.3310

-6.3656

-6.4002

-6.4348

-6.4694

-6.5040

-6.5386

-6.5732

-6.6078

-6.6424

-6.6770

-6.7116

-6.7462

-6.7808

-6.8154

-6.8500

-6.8846

-6.9192

-6.9538

-6.9884

-7.0230

-7.0576

-7.0922

TEST PART M PI P MEX10-6 V4 IT WING RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-665 19 1.151 1408.9 618.6 3.007 1175.5 574.03 89.70 4 PCT 7 701 4-12-77 TRANSONIC 16T

ALFEN	CN	CV	CA	CLM	CLN	CLL	CAP	CAR
5.01	0.5395	0.0032	0.0466	-0.0025	0.0003	0.0021	0.0249	0.0179
2.20	0.2396	0.0025	0.0492	-0.0153	0.0003	0.0025	0.0325	0.0166
-0.08	0.0077	0.0016	0.0514	0.0029	0.0003	0.0029	0.0345	0.0169
-2.31	-0.2142	0.0011	0.0499	0.0222	0.0001	0.0032	0.0335	0.0163
-5.12	-0.5064	0.0004	0.0474	0.0481	-0.0002	0.0033	0.0314	0.0160

AEUC PROPULSION WIND TUNNEL

DATE 4-12-77

WINDS 7 701

IT 49.70 & PCT

ALFMA=-5.12

ALFMA=-2.31

ALFMA=-0.08

TEST	PAINT	W	PT	M	WEXL0-6	VM	U	IT	WINDS	DATE
1F-445	13	1.151	1.060.9	614.6	3.007	1175.5	514.03	49.70 & PCT	7 701	4-12-77
PRESSURE COEFFICIENTS CPS=(PS-W)/U										
ALFMA=2.01 ALFMA=2.20 ALFMA=-0.08										
0MIFCF										
1	CPS 1=	0.0011	0.0901	0.1135	0.1378	0.1794				
2	CPS 2=	0.0191	0.0400	0.0693	0.1009	0.1456				
3	CPS 3=	-0.0343	-0.0190	0.0044	-0.0323	0.0707				
4	CPS 4=	-0.0913	-0.0813	-0.0030	-0.0446	-0.0114				
5	CPS 5=	-0.1333	-0.1228	-0.1136	-0.1000	-0.0637				
6	CPS 6=	-0.1486	-0.1547	-0.1529	-0.1452	-0.1284				
7	CPS 7=	-0.1240	-0.1417	-0.1408	-0.1344	-0.1340				
8	CPS 8=	-0.0740	-0.0960	-0.0951	-0.0947	-0.0934				
9	CPS 9=	-0.0257	-0.0741	-0.0787	-0.0804	-0.0825				
10	CPS 10=	-0.0343	-0.0382	-0.0444	-0.0464	-0.0629				
11	CPS 11=	-0.0364	-0.0137	0.0104	0.0334	0.0706				
12	CPS 12=	-0.0667	-0.0156	0.0340	0.0843	0.1783				
13	CPS 13=	-0.0924	-0.0371	0.0274	0.0794	0.1783				
14	CPS 14=	-0.1000	-0.0466	0.0225	0.0805	0.1734				
15	CPS 15=	-0.1145	-0.0640	0.0053	0.0689	0.1520				
16	CPS 16=	-0.1234	-0.0737	-0.0103	0.0512	0.1328				
17	CPS 17=	-0.1374	-0.0903	-0.0288	0.0293	0.1109				
18	CPS 18=	-0.1537	-0.1047	-0.0461	0.0112	0.0842				
19	CPS 19=	-0.1730	-0.1251	-0.0695	-0.0171	0.0515				
20	CPS 20=	-0.2044	-0.1553	-0.1031	-0.0547	0.0127				
21	CPS 21=	-0.1722	-0.1288	-0.0914	-0.0562	-0.0027				
22	CPS 22=	-0.0512	-0.0413	-0.0239	-0.0118	0.0026				
23	CPS 23=	0.0222	0.0101	0.0078	0.0018	-0.0087				
24	CPS 24=	0.0433	0.0448	0.0339	0.0169	-0.0016				
25	CPS 25=	0.0191	0.0331	0.0271	0.0142	-0.0095				

TEST PANT HEXID-A ALPHA PT 4.00 7 MIN SURVEY DATE AEDC PROPULSION WIND TUNNEL
TF-445 50 3.000 -0.01 4 PCT -1.02 4 20H 4-13-77

INNER FLOWFIELD SURVEY SUMMARY

POINT GP	A	M	V	PT	Q	TT	HL	VML/VH	PTL/PT	CPL	UL/VH	VL/VH	WL/VH	AAL	SWL
1 60	14.953	0.926	991.61	1515.4	522.5	100.4	0.894	0.97	1.000	0.058	0.971	0.008	0.012	0.72	0.49
2 60	14.644	0.925	991.34	1515.5	522.4	100.3	0.899	0.97	1.001	0.068	0.966	0.004	0.015	0.91	0.48
3 60	14.341	0.925	991.41	1515.9	522.5	100.4	0.898	0.97	1.001	0.070	0.965	0.004	0.020	1.17	0.46
4 60	14.000	0.926	991.84	1515.5	522.5	100.6	0.894	0.97	1.000	0.059	0.970	0.005	0.028	1.62	0.31
5 60	17.654	0.926	991.72	1513.9	522.0	100.5	0.916	0.99	1.001	0.018	0.991	0.011	0.037	2.16	0.64
6 60	17.331	0.925	991.16	1513.1	521.4	100.5	0.939	1.01	1.000	-0.026	1.012	0.009	0.042	2.37	0.49
7 60	16.900	0.925	991.31	1512.0	521.4	100.4	1.004	1.07	1.000	-0.142	1.071	0.004	0.038	2.03	0.23
8 60	16.644	0.926	991.61	1513.0	521.6	100.4	1.008	1.07	0.999	-0.150	1.074	0.001	0.025	1.31	0.04
9 60	16.344	0.925	990.52	1512.9	521.1	100.1	1.006	1.07	1.002	-0.146	1.074	-0.000	0.014	0.76	-0.01
10 60	16.002	0.925	991.41	1513.7	521.7	100.4	0.948	1.06	1.000	-0.114	1.057	-0.001	0.006	0.30	-0.05
11 60	15.665	0.925	991.40	1514.0	521.9	100.4	0.944	1.05	1.000	-0.107	1.053	-0.004	-0.003	-0.15	-0.23
12 60	15.337	0.925	990.83	1513.5	521.6	100.1	0.969	1.04	1.001	-0.080	1.040	-0.002	-0.008	-0.45	-0.09
13 60	14.995	0.925	991.37	1514.4	521.9	100.5	0.965	1.04	1.001	-0.070	1.034	-0.001	-0.014	-0.79	-0.05
14 60	14.671	0.925	991.15	1514.6	521.9	100.5	0.940	1.01	1.000	-0.028	1.014	0.001	-0.020	-1.15	0.06
15 60	14.315	0.925	990.89	1514.8	521.8	100.4	0.935	1.01	0.994	-0.022	1.009	0.004	-0.031	-1.74	0.20
16 60	14.001	0.924	990.20	1514.2	521.4	100.0	0.933	1.01	1.000	-0.015	1.007	0.005	-0.030	-1.70	0.31
17 60	13.659	0.925	991.31	1515.9	522.5	100.4	0.927	1.00	1.001	-0.002	1.001	0.011	-0.035	-2.03	0.62
18 60	13.340	0.925	991.00	1515.2	521.9	100.4	0.917	0.99	1.000	0.015	0.992	0.016	-0.037	-2.16	0.95
20 60	13.002	0.925	991.16	1514.6	521.9	100.4	0.912	0.99	1.001	0.025	0.987	0.022	-0.036	-2.09	1.30
21 60	12.663	0.926	991.72	1513.9	522.0	100.5	0.906	0.98	1.000	0.036	0.981	0.030	-0.030	-1.74	1.72
22 60	12.331	0.925	991.27	1512.9	521.4	100.4	0.903	0.98	1.001	0.042	0.974	0.032	-0.023	-1.37	1.85
23 60	12.006	0.925	991.51	1513.0	521.6	100.4	0.902	0.98	0.999	0.041	0.974	0.031	-0.018	-1.03	1.82
24 60	11.668	0.925	991.15	1512.0	521.0	100.4	0.903	0.98	1.000	0.041	0.974	0.028	-0.010	-0.58	1.64
25 60	11.341	0.925	990.74	1513.3	521.4	100.1	0.905	0.98	1.001	0.038	0.981	0.025	-0.008	-0.48	1.46
26 60	11.006	0.925	990.89	1517.7	522.9	100.3	0.907	0.98	1.001	0.034	0.983	0.022	-0.005	-0.32	1.25
27 60	10.668	0.925	991.06	1518.7	523.4	100.1	0.909	0.98	1.000	0.032	0.984	0.019	-0.004	-0.20	1.09
28 60	10.337	0.926	991.75	1514.2	523.6	100.2	0.910	0.99	1.000	0.029	0.985	0.018	-0.002	-0.09	1.02
29 60	9.972	0.926	991.91	1516.6	523.1	100.4	0.914	0.99	1.000	0.023	0.989	0.016	-0.000	-0.00	0.94

TEST PART 77 HEX10-6 ALPHA 5.05 4 PCT 4.00 Y -0.86 Z 208 SURVEY DATE 4-14-77 AEDC PROPULSION WIND TUNNEL TRANSONIC 1A7

INNER FLOWFIELD SURVEY SUMMARY

POINT GP	A	H	VR	PT	Q	TT	NL	VML/VM	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	AAL	SWL
5	19.019	0.927	943.58	147.1	513.2	90.4	0.901	0.98	1.001	0.049	0.974	0.060	0.035	2.03	3.50
7	18.649	0.926	942.69	146.1	513.5	90.2	0.891	0.97	1.001	0.065	0.965	0.060	0.038	2.25	3.56
9	18.347	0.925	942.28	145.1	513.9	90.4	0.890	0.97	1.001	0.067	0.964	0.066	0.042	2.52	3.93
11	18.014	0.926	941.85	144.1	511.4	90.1	0.888	0.96	0.999	0.071	0.961	0.060	0.049	2.92	3.58
13	17.684	0.925	942.30	143.0	507.0	90.1	0.905	0.98	0.999	0.035	0.978	0.060	0.058	3.37	3.54
15	17.356	0.924	941.08	142.7	502.9	90.0	0.934	1.01	0.999	-0.019	1.005	0.057	0.062	3.52	3.27
17	17.022	0.924	940.74	142.4	500.5	90.0	0.973	1.04	1.000	-0.040	1.042	0.051	0.055	3.02	2.80
19	16.687	0.924	940.07	142.0	500.1	90.3	0.970	1.04	1.000	-0.043	1.040	0.045	0.041	2.27	2.47
21	16.353	0.925	942.20	141.5	501.5	90.3	0.938	1.01	1.001	-0.022	1.010	0.044	0.027	1.52	2.51
23	16.028	0.925	942.24	141.3	502.4	90.3	0.927	1.00	1.001	-0.003	1.001	0.045	0.020	1.12	2.59
25	15.674	0.924	940.88	140.2	504.5	90.2	0.922	1.00	1.001	0.006	0.997	0.047	0.013	0.77	2.71
27	15.345	0.925	942.57	140.5	508.3	90.3	0.912	0.99	1.001	0.027	0.986	0.051	0.009	0.53	2.94
29	15.014	0.925	942.37	140.6	509.6	90.3	0.901	0.98	1.001	0.046	0.976	0.054	0.007	0.38	3.16
31	14.689	0.926	943.17	140.3	512.1	90.3	0.889	0.97	1.001	0.070	0.964	0.060	0.000	0.02	3.55
33	14.354	0.925	942.43	140.4	511.7	90.5	0.877	0.95	1.000	0.091	0.952	0.065	0.002	0.14	3.92
35	14.027	0.925	942.30	140.1	511.1	90.3	0.860	0.94	1.000	0.122	0.936	0.071	0.002	0.11	4.33
37	13.674	0.925	941.80	140.7	510.4	90.3	0.838	0.92	1.000	0.162	0.915	0.081	0.001	0.08	5.07
39	13.350	0.925	942.00	140.7	510.1	90.4	0.823	0.90	1.001	0.191	0.899	0.094	0.013	0.83	5.97
41	13.020	0.925	942.24	140.0	509.8	90.5	0.811	0.89	1.000	0.213	0.885	0.107	0.032	2.04	6.92
43	12.686	0.925	941.98	140.1	509.2	90.4	0.809	0.89	1.000	0.218	0.879	0.122	0.062	4.04	7.87
45	12.352	0.925	941.98	140.4	509.0	90.3	0.828	0.91	1.000	0.140	0.898	0.109	0.091	5.77	6.94
47	12.024	0.925	941.84	140.9	508.7	90.4	0.848	0.93	0.999	0.142	0.917	0.091	0.108	6.75	5.47
49	11.693	0.925	942.15	140.6	508.5	90.4	0.868	0.95	1.000	0.105	0.937	0.077	0.113	6.88	4.73
51	11.365	0.925	942.28	140.5	508.4	90.2	0.871	0.95	0.996	0.095	0.941	0.060	0.112	6.81	3.68
53	11.013	0.925	942.30	140.2	508.0	90.4	0.887	0.96	1.000	0.070	0.957	0.049	0.113	6.73	2.96

34

TEST POINT MEX10-6 ALPHA M106 Y Z MACH SURVEY DATE AEDC PROPELLSION WIND TUNNEL
 1F-605 92 3.075 5.07 X DCT 4.00 -1.11 4 20A 4-14-77 TRANSONIC 1A1

INNER FLOWFIELD SURVEY SUMMARY

POINT GP	X	Y	Z	TT	ML	VNL/VN	PTL/PT	CPL	UL/VA	VL/VUM	WL/VUM	AAL	SAL
5	14.011	0.924	941.46	1479.8	509.3	0.949	0.97	0.996	0.059	0.956	-0.036	0.005	0.30 -2.16
7	14.045	0.924	941.52	1480.1	509.4	0.942	0.96	0.996	0.071	0.960	-0.037	0.009	0.54 -2.23
9	14.044	0.924	942.26	1480.4	509.4	0.942	0.96	0.996	0.072	0.959	-0.037	0.014	0.84 -2.22
11	14.002	0.925	942.32	1480.7	510.3	0.943	0.97	0.996	0.053	0.969	-0.038	0.021	1.26 -2.22
13	17.074	0.924	941.66	1480.2	509.5	0.947	0.98	0.996	0.026	0.953	-0.037	0.029	1.68 -2.17
15	17.350	0.924	941.94	1480.0	509.5	0.925	1.00	0.997	0.006	0.999	-0.040	0.031	1.80 -2.31
17	17.012	0.924	941.98	1480.4	509.6	0.936	1.01	0.996	0.028	1.010	-0.035	0.025	1.43 -2.00
19	16.065	0.924	942.19	1483.1	509.7	1.074	1.13	0.997	0.271	1.133	-0.033	0.007	0.35 -1.65
21	16.348	0.924	942.06	1479.5	509.4	1.125	1.18	0.997	0.358	1.176	-0.037	0.001	0.04 -1.82
23	16.021	0.924	942.08	1479.9	509.5	1.114	1.17	0.998	0.339	1.167	-0.044	0.006	-0.32 -2.16
25	15.687	0.924	942.31	1480.0	509.6	1.110	1.16	0.998	0.331	1.162	-0.048	0.013	-0.63 -2.37
27	15.335	0.925	942.64	1480.4	509.9	1.103	1.16	0.999	0.314	1.156	-0.052	0.021	-1.05 -2.59
29	15.020	0.925	942.49	1479.9	509.9	1.095	1.15	0.999	0.303	1.149	-0.055	0.028	-1.40 -2.74
31	14.682	0.924	941.03	1479.4	509.2	1.089	1.15	0.998	0.297	1.145	-0.061	0.034	-1.70 -3.03
33	14.350	0.924	941.76	1480.0	509.4	1.088	1.15	0.998	0.295	1.143	-0.066	0.041	-2.05 -3.32
35	14.002	0.924	942.36	1479.9	509.6	1.078	1.14	0.998	0.277	1.133	-0.073	0.052	-2.60 -3.47
37	13.685	0.925	942.55	1479.7	509.7	1.070	1.13	0.996	0.265	1.125	-0.083	0.063	-3.21 -4.22
39	13.344	0.924	942.01	1479.6	509.4	1.083	1.14	0.995	0.291	1.134	-0.099	0.099	-4.45 -5.00
41	13.022	0.924	941.86	1478.8	508.4	1.118	1.17	0.994	0.346	1.159	-0.099	0.136	-6.69 -4.88
43	12.676	0.924	941.27	1478.1	508.5	1.067	1.13	0.999	0.259	1.114	-0.072	0.166	-8.50 -3.68
45	12.359	0.924	941.61	1478.5	508.4	0.949	1.06	0.999	0.120	1.045	-0.036	0.170	-9.26 -1.99
47	12.026	0.924	942.00	1479.6	509.3	0.932	1.01	1.000	0.015	0.995	-0.095	0.158	-9.01 -0.26
49	11.685	0.924	941.98	1481.6	510.1	0.918	0.99	1.000	0.011	0.984	0.012	0.142	-8.23 0.67
51	11.352	0.924	942.07	1483.0	510.5	0.913	0.99	1.000	0.021	0.981	0.014	0.130	-7.54 0.83
53	10.998	0.925	942.41	1484.6	511.3	0.914	0.99	1.000	0.021	0.982	0.016	0.121	-7.03 0.96

TEST PANT MEXIUE ALFMM WING Y Z MON SURVEY DATE AEDC PROPULSION WIND TUNNEL
 YF-65 62 3.007 -0.01 * PCI -4.00 -0.99 212 4-13-77 TRANSONIC 161

INNER FLOWFIELD SURVEY SUMMARY

POINT GP	X	Y	Z	U	PT	V1	TT	ML	VML/VM	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	AAL	SWL
1	0	10.995	0.926	992.10	1517.5	523.4	100.6	0.908	0.94	1.000	0.034	0.943	-0.003	-0.003	-0.19	-0.15
2	0	12.351	0.925	991.22	1514.5	522.0	100.2	0.909	0.94	1.000	0.050	0.975	-0.012	-0.017	-0.98	-0.68
3	0	13.655	0.925	990.64	1514.0	521.5	100.3	0.914	0.99	1.000	0.021	0.990	0.007	-0.021	-1.20	0.41
4	0	14.982	0.925	990.70	1517.3	522.8	99.9	0.938	1.01	1.000	-0.025	1.012	0.022	-0.012	-0.64	1.26
5	0	16.312	0.925	990.68	1512.2	520.8	100.4	0.993	1.06	1.000	-0.125	1.062	0.025	0.012	0.64	1.35
6	0	17.323	0.925	990.10	1514.7	521.6	99.9	0.977	1.05	1.001	-0.094	1.047	0.020	0.022	1.18	1.09
7	0	19.005	0.926	992.04	1516.5	523.2	100.2	0.900	0.98	1.001	0.049	0.976	0.014	0.001	0.03	0.94

TEST PART HEAD-ON ALPHA WIND AECUC PROUSSION WIND TUNNEL
TF-685 46 2.993 -0.000 4 PCT -0.02 -14.1R 5 401 TRANSONIC 1AT

DATE
4-13-77

DATE
4-13-77

DATE
4-13-77

DATE
4-13-77

POINT	REP	AL	M	V ₀	WT	U	IT	ML	VTL/VH	PIL/PT	CPL	UI/VM	VT/VM	WI/VM	AATL	SWTL
1	26.074	0.924	978.60	1471.5	508.7	87.0	87.0	0.915	0.99	1.000	0.017	0.991	0.006	0.005	0.28	0.33
2	23.533	0.926	974.97	1474.1	508.2	86.2	86.2	0.916	0.99	1.001	0.014	0.993	0.007	0.005	0.27	0.38
3	23.074	0.924	979.79	1452.6	510.2	84.6	84.6	0.921	1.00	1.002	0.007	0.998	0.007	0.005	0.29	0.41
4	22.541	0.924	981.49	1470.7	508.4	90.2	90.2	0.919	1.00	1.001	0.025	0.987	0.006	0.005	0.30	0.36
5	22.041	0.924	981.34	1471.2	506.3	90.7	90.7	0.919	1.00	1.001	0.010	0.995	0.006	0.005	0.31	0.37
6	21.535	0.926	983.15	1474.7	509.8	90.9	90.9	0.922	1.00	1.001	0.009	0.996	0.007	0.005	0.29	0.38
7	21.046	0.925	982.50	1477.9	509.1	91.0	91.0	0.917	0.99	1.000	0.014	0.993	0.007	0.005	0.28	0.38
8	20.542	0.924	981.73	1472.3	508.7	91.2	91.2	0.915	0.99	1.000	0.015	0.992	0.006	0.005	0.28	0.36
9	20.047	0.925	981.72	1470.1	506.3	90.3	90.3	0.916	0.99	1.001	0.014	0.994	0.006	0.003	0.20	0.35
10	19.544	0.925	981.74	1470.7	508.8	90.3	90.3	0.920	1.00	1.000	0.010	0.996	0.006	0.005	0.29	0.37
11	19.035	0.924	981.53	1472.1	506.3	90.4	90.4	0.920	1.00	1.001	0.009	0.996	0.007	0.005	0.28	0.40
12	18.535	0.925	982.34	1475.4	508.5	90.4	90.4	0.914	0.99	1.000	0.011	0.994	0.006	0.004	0.26	0.36
13	18.039	0.925	982.44	1477.2	509.5	90.4	90.4	0.921	1.00	1.001	0.009	0.996	0.006	0.005	0.28	0.36
14	17.545	0.926	982.72	1478.0	509.7	90.1	90.1	0.922	1.00	1.000	0.008	0.996	0.006	0.005	0.28	0.36
15	17.034	0.926	982.48	1476.9	504.2	90.2	90.2	0.923	1.00	1.001	0.006	0.998	0.006	0.004	0.22	0.35
16	16.532	0.925	982.25	1476.0	504.7	90.3	90.3	0.922	1.00	1.000	0.007	0.997	0.006	0.005	0.29	0.35
17	16.043	0.925	981.83	1475.0	508.2	90.2	90.2	0.922	1.00	1.000	0.006	0.997	0.007	0.004	0.21	0.38
18	15.540	0.925	982.21	1473.5	507.4	90.2	90.2	0.923	1.00	1.001	0.006	0.998	0.006	0.003	0.18	0.35
19	15.037	0.925	981.46	1473.0	507.5	90.3	90.3	0.923	1.00	1.000	0.005	0.998	0.006	0.003	0.16	0.35
20	14.534	0.925	981.60	1473.1	507.4	90.0	90.0	0.923	1.00	1.000	0.003	0.999	0.006	-0.000	-0.01	0.35
21	14.045	0.925	981.60	1473.1	507.4	90.0	90.0	0.923	1.00	1.000	0.006	0.997	0.006	0.002	0.12	0.34
22	13.536	0.925	981.60	1473.3	507.5	90.2	90.2	0.921	1.00	1.000	0.006	0.997	0.006	0.002	0.10	0.37
23	13.041	0.924	981.53	1473.0	507.3	90.2	90.2	0.921	1.00	1.001	0.007	0.997	0.006	0.002	0.10	0.37
24	12.536	0.925	981.78	1473.1	507.4	90.2	90.2	0.920	1.00	1.000	0.008	0.996	0.006	0.002	0.10	0.36
25	12.041	0.925	981.95	1473.2	507.6	90.1	90.1	0.921	1.00	1.000	0.008	0.996	0.006	0.001	0.06	0.34
26	11.534	0.925	981.66	1473.4	507.5	90.2	90.2	0.920	1.00	1.001	0.009	0.996	0.007	0.003	0.19	0.34
27	11.047	0.925	981.45	1474.4	507.5	90.3	90.3	0.921	1.00	1.000	0.008	0.996	0.006	0.001	0.09	0.33
28	10.534	0.925	981.82	1474.2	507.4	90.2	90.2	0.924	1.00	1.001	0.004	0.999	0.006	0.001	0.05	0.35
29	10.047	0.925	982.21	1474.9	508.3	90.3	90.3	0.921	1.00	1.000	0.007	0.997	0.006	0.001	0.04	0.35
30	9.541	0.925	982.07	1475.0	508.2	90.3	90.3	0.920	1.00	1.000	0.009	0.996	0.006	0.001	0.09	0.36
31	9.046	0.925	981.96	1475.8	508.5	90.1	90.1	0.916	0.99	0.999	0.014	0.991	0.007	0.001	0.04	0.38
32	8.540	0.926	982.71	1476.4	509.0	90.4	90.4	0.922	1.00	1.001	0.007	0.997	0.007	0.000	0.03	0.39
33	8.036	0.925	982.35	1475.5	508.5	90.4	90.4	0.921	1.00	1.000	0.008	0.996	0.006	0.000	0.03	0.35
34	7.534	0.925	982.08	1474.8	508.3	90.0	90.0	0.920	1.00	1.000	0.010	0.995	0.006	0.001	0.04	0.36
35	7.041	0.925	982.10	1474.7	508.1	90.3	90.3	0.920	1.00	1.000	0.010	0.995	0.006	-0.000	-0.01	0.37
36	6.540	0.925	981.84	1474.9	508.1	90.1	90.1	0.921	1.00	1.000	0.008	0.996	0.006	0.001	0.07	0.36
37	6.034	0.926	982.57	1475.0	508.7	90.2	90.2	0.922	1.00	1.000	0.008	0.996	0.006	-0.000	-0.03	0.35
38	5.543	0.925	982.04	1476.0	508.4	90.5	90.5	0.919	0.99	1.001	0.011	0.995	0.007	0.001	-0.04	0.43
39	5.036	0.925	982.66	1475.9	508.5	90.7	90.7	0.920	1.00	1.000	0.011	0.995	0.006	-0.001	-0.06	0.35
40	4.543	0.925	982.60	1475.6	508.7	90.4	90.4	0.921	1.00	1.001	0.010	0.996	0.006	0.001	-0.07	0.35
41	4.044	0.925	981.89	1475.0	508.2	90.2	90.2	0.917	0.99	1.001	0.015	0.993	0.005	-0.001	-0.07	0.29
42	3.545	0.925	982.16	1475.0	508.2	90.4	90.4	0.917	0.99	1.000	0.015	0.993	0.007	-0.001	-0.05	0.38
43	3.042	0.925	982.09	1474.9	508.0	90.6	90.6	0.917	0.99	1.001	0.016	0.993	0.006	-0.001	-0.06	0.37
44	2.542	0.925	982.59	1475.4	508.6	90.4	90.4	0.917	0.99	1.000	0.016	0.992	0.007	-0.001	-0.03	0.39
45	2.052	0.925	982.07	1475.0	508.6	90.4	90.4	0.916	0.99	1.000	0.017	0.992	0.006	-0.000	-0.03	0.32
46	1.544	0.925	981.82	1474.9	508.0	90.4	90.4	0.914	0.99	1.000	0.020	0.990	0.006	-0.000	-0.03	0.36
47	1.046	0.925	982.65	1475.7	508.7	90.5	90.5	0.919	0.99	1.001	0.012	0.994	0.001	0.000	0.01	0.07

TEST PART 45 3.000 0.01 4 PCT -14.19 5 401

DATE 4-13-77

AEUC PROPUSSION WTND TUNNEL
TRANSONIC 16T

OUTER FLOW FIELD SURVEY SUMMARY

POINT GP	AT	W	VW	PI	W	TI	HL	VTL/VW	PTL/PT	CPL	UT/VW	VT/VW	WI/VW	AATL	SWTL
7 48	0.541	0.924	941.79	1476.7	507.6	90.5	0.915	0.99	1.001	0.019	0.991	0.006	0.000	0.01	0.36
9 49	0.544	0.925	942.46	1475.1	508.5	90.7	0.915	0.99	1.000	0.021	0.990	0.006	0.001	0.04	0.34
11 50	-0.552	0.924	941.43	1476.9	507.5	91.4	0.913	0.99	1.000	0.021	0.990	0.006	0.001	0.05	0.37
13 51	-0.550	0.925	941.48	1471.0	506.6	90.0	0.912	0.99	1.000	0.023	0.989	0.006	0.001	0.06	0.36
15 52	-1.550	0.925	941.81	1473.0	507.3	90.4	0.915	0.99	1.000	0.019	0.991	0.006	0.002	0.10	0.33
17 53	-1.554	0.925	942.34	1476.5	508.9	90.3	0.917	0.99	1.001	0.016	0.993	0.007	0.002	0.13	0.39
19 54	-2.545	0.926	942.76	1478.4	509.9	90.1	0.921	1.00	1.001	0.010	0.995	0.007	0.009	0.51	0.37
21 55	-2.549	0.926	943.16	1479.3	510.5	90.0	0.917	0.99	1.001	0.020	0.991	0.007	0.003	0.16	0.41
23 56	-3.554	0.927	944.14	1480.7	511.4	90.3	0.918	0.99	1.001	0.019	0.991	0.006	0.003	0.19	0.37
25 57	-3.554	0.928	944.26	1480.2	511.4	90.1	0.918	0.99	1.001	0.018	0.992	0.007	0.003	0.19	0.43
27 58	-4.556	0.927	944.01	1480.1	511.2	90.1	0.918	0.99	1.001	0.016	0.992	0.006	0.003	0.20	0.37
29 59	-4.557	0.927	943.76	1480.0	511.0	90.1	0.919	0.99	1.001	0.016	0.993	0.007	0.006	0.36	0.38
31 60	-5.565	0.926	943.03	1480.1	510.6	90.2	0.917	0.99	1.001	0.018	0.992	0.007	0.003	0.20	0.38
33 61	-5.560	0.925	941.56	1478.0	509.1	90.0	0.915	0.99	1.000	0.019	0.991	0.007	0.004	0.21	0.40

TEST NAME: 4-13-77

DATE: 4-13-77

AEUC PROPLUSION WIND TUNNEL

TRANSONIC

141

AEUC PROPLUSION WIND TUNNEL

TRANSONIC

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141

POINT	GP	AT	M	VM	MT	V	TT	ML	VTL/VM	WIL/PT	CPL	UI/VM	VT/VM	WT/VM	AILL	SMIL
1	60	23.456	0.526	982.62	1478.5	510.2	89.7	0.923	1.00	1.000	0.007	0.997	0.012	-0.007	-0.43	0.69
2	60	23.475	0.525	981.64	1477.7	509.4	89.3	0.921	1.00	1.000	0.010	0.995	0.012	-0.005	-0.29	0.71
3	60	23.002	0.526	981.63	1476.8	509.1	89.2	0.919	0.99	1.000	0.012	0.994	0.012	-0.004	-0.21	0.68
4	60	22.525	0.525	981.60	1474.3	508.6	89.3	0.921	1.00	1.000	0.009	0.996	0.013	-0.003	-0.19	0.74
5	60	21.974	0.525	981.39	1450.0	510.0	89.4	0.921	1.00	1.001	0.009	0.996	0.012	-0.003	-0.19	0.72
6	60	21.443	0.525	981.64	1461.3	510.6	89.4	0.921	1.00	1.001	0.009	0.996	0.012	-0.004	-0.21	0.70
7	60	21.047	0.526	982.51	1482.7	511.5	89.6	0.923	1.00	1.001	0.008	0.997	0.012	-0.004	-0.22	0.71
8	60	20.537	0.526	982.43	1482.7	511.6	89.4	0.923	1.00	1.000	0.008	0.997	0.012	-0.003	-0.19	0.70
9	60	20.047	0.526	982.23	1483.2	511.6	89.4	0.922	1.00	1.001	0.009	0.996	0.013	-0.003	-0.19	0.77
10	60	19.553	0.526	982.14	1483.1	511.7	89.2	0.922	1.00	1.001	0.008	0.996	0.012	-0.003	-0.18	0.70
11	60	19.001	0.526	982.00	1483.1	511.6	89.1	0.923	1.00	1.000	0.005	0.997	0.012	-0.003	-0.16	0.67
12	60	18.472	0.526	982.64	1482.9	511.7	89.4	0.924	1.00	1.000	0.004	0.998	0.012	-0.001	-0.08	0.67
13	60	18.011	0.526	982.34	1482.9	511.5	89.5	0.927	1.00	1.001	-0.001	1.001	0.012	-0.003	-0.19	0.71
14	60	17.454	0.526	981.99	1513.0	521.9	100.4	0.926	1.00	1.001	0.001	1.000	0.014	-0.001	-0.07	0.78
15	60	16.904	0.526	981.97	1513.3	522.0	100.4	0.926	1.00	1.000	0.001	1.000	0.013	-0.000	-0.02	0.76
16	60	16.452	0.526	982.05	1513.1	521.9	100.4	0.925	1.00	1.000	0.001	0.999	0.016	-0.000	-0.01	0.90
17	60	16.022	0.526	982.44	1513.2	522.2	100.5	0.930	1.00	1.001	-0.003	1.003	0.020	0.000	0.02	1.13
18	60	15.542	0.527	982.53	1513.6	522.5	100.3	0.928	1.00	1.001	-0.001	1.001	0.016	0.001	0.07	0.89
19	60	16.984	0.525	981.30	1513.3	521.6	100.3	0.926	1.00	1.000	-0.000	1.000	0.015	0.000	0.01	0.88
20	60	16.544	0.525	981.11	1512.8	521.3	100.4	0.923	1.00	0.999	0.003	0.998	0.016	-0.002	-0.11	0.94
21	60	16.017	0.526	981.44	1513.7	521.9	100.2	0.924	1.00	1.000	0.003	0.999	0.017	0.000	0.01	0.96
22	60	15.522	0.525	981.64	1513.4	521.8	100.4	0.924	1.00	1.001	0.003	0.999	0.017	0.000	0.02	0.96
23	60	15.004	0.525	981.29	1513.1	521.5	100.3	0.923	1.00	1.001	0.006	0.997	0.016	0.001	0.03	0.92
24	60	14.466	0.525	981.39	1513.3	521.6	100.4	0.924	1.00	1.001	0.004	0.999	0.017	-0.000	-0.00	0.97
25	60	13.959	0.526	981.56	1513.0	521.8	100.4	0.925	1.00	1.002	0.004	0.999	0.018	0.003	0.15	1.00
26	60	13.514	0.525	981.56	1513.1	521.6	100.5	0.924	1.00	1.001	0.004	0.999	0.017	0.001	0.03	0.99
27	60	13.025	0.526	981.57	1512.3	521.9	99.5	0.924	1.00	1.000	0.005	0.998	0.018	0.001	0.07	1.05
28	60	12.532	0.527	981.95	1512.5	522.0	99.8	0.924	1.00	1.001	0.005	0.998	0.017	0.001	0.06	0.99
29	60	12.011	0.526	981.20	1512.7	521.6	99.8	0.924	1.00	1.001	0.006	0.998	0.017	0.002	0.10	0.97
30	60	11.462	0.525	980.73	1512.9	521.3	99.9	0.923	1.00	1.001	0.006	0.998	0.017	0.001	0.05	0.98

TEST NAME: MEALU-8 ALFHM 3.003 4-13-77 DATE: AEDC PROPULSION WIND TUNNEL TRANSONIC 1A1

TEST CASE: 3.003 4-13-77 DATE: AEDC PROPULSION WIND TUNNEL TRANSONIC 1A1

TEST CASE: 3.003 4-13-77 DATE: AEDC PROPULSION WIND TUNNEL TRANSONIC 1A1

POINT	GP	AL	4	V ₀	PT	U	TI	ML	VTL/V ₀	PIL/PT	CPL	UT/V ₀	VT/V ₀	WT/V ₀	AATL	SWTL
1	60	8.546	0.925	990.59	1516.0	521.3	100.0	0.922	1.00	1.000	0.005	0.998	0.018	0.002	0.10	1.01
2	60	8.543	0.925	990.57	1516.7	521.4	100.1	0.921	1.00	1.000	0.006	0.997	0.018	0.002	0.12	1.01
3	60	7.543	0.925	989.77	1516.1	521.3	99.9	0.922	1.00	1.001	0.004	0.998	0.018	0.001	0.05	1.02
4	60	7.549	0.925	989.96	1516.3	521.3	100.1	0.922	1.00	1.000	0.004	0.998	0.018	0.001	0.08	1.01
5	60	6.546	0.925	990.14	1516.7	521.5	100.1	0.923	1.00	1.000	0.002	0.999	0.018	0.001	0.08	1.06
6	60	6.546	0.925	989.87	1516.3	521.3	100.0	0.923	1.00	1.001	0.004	0.998	0.018	0.002	0.09	1.06
7	60	5.578	0.925	989.58	1516.7	521.3	100.3	0.919	1.00	0.999	0.008	0.995	0.014	0.002	0.13	1.06
8	60	5.578	0.925	991.53	1511.3	521.1	100.3	0.921	1.00	1.000	0.008	0.996	0.019	0.003	0.17	1.07
9	60	5.541	0.925	990.59	1511.4	520.7	100.5	0.920	1.00	1.001	0.009	0.996	0.019	0.003	0.15	1.10
10	60	5.501	0.925	991.06	1512.0	521.0	100.3	0.921	1.00	1.001	0.009	0.996	0.019	0.004	0.21	1.09
11	60	4.573	0.925	991.06	1512.7	521.2	100.4	0.921	1.00	1.000	0.008	0.996	0.019	0.002	0.09	1.12
12	60	3.530	0.925	991.07	1513.4	521.5	100.4	0.921	1.00	1.001	0.009	0.996	0.019	0.001	0.07	1.08
13	60	3.520	0.925	990.86	1513.7	521.4	100.5	0.921	1.00	1.001	0.009	0.996	0.020	-0.000	-0.03	1.13
14	60	3.521	0.925	990.84	1516.0	521.4	100.4	0.921	1.00	1.001	0.008	0.997	0.019	-0.000	-0.01	1.10
15	60	2.562	0.925	991.93	1511.0	521.1	100.4	0.918	0.99	1.000	0.015	0.992	0.019	0.001	0.08	1.12
16	60	2.547	0.925	991.23	1512.5	521.2	100.5	0.920	1.00	1.001	0.011	0.995	0.019	0.001	0.05	1.10
17	60	2.560	0.925	990.69	1515.1	521.9	100.2	0.924	1.00	1.002	0.005	0.999	0.019	-0.000	-0.03	1.10
18	60	1.755	0.925	991.39	1516.9	522.9	100.4	0.920	1.00	1.000	0.010	0.995	0.019	-0.002	-0.14	1.02
19	60	0.755	0.925	991.44	1514.4	522.4	100.1	0.920	0.99	1.001	0.012	0.994	0.019	-0.002	-0.14	1.07
20	60	-0.016	0.925	991.93	1512.7	521.8	100.3	0.918	0.99	1.000	0.016	0.992	0.017	-0.000	-0.01	1.01
21	60	-0.579	0.925	991.39	1511.6	521.1	100.4	0.918	0.99	1.000	0.015	0.993	0.018	0.000	0.01	1.03
22	60	-1.244	0.925	990.39	1512.3	520.9	99.9	0.914	0.99	0.999	0.018	0.990	0.017	-0.000	-0.02	0.99
23	60	-1.542	0.925	991.43	1513.7	521.7	100.4	0.921	1.00	1.001	0.010	0.996	0.017	-0.002	-0.10	0.98
24	60	-2.063	0.925	991.43	1513.9	521.8	100.5	0.919	0.99	1.001	0.012	0.994	0.016	-0.001	-0.05	0.94
25	60	-2.552	0.925	991.68	1513.9	521.8	100.1	0.919	0.99	1.000	0.012	0.994	0.017	-0.001	-0.08	0.96
26	60	-3.060	0.925	991.31	1514.7	522.0	100.4	0.920	1.00	1.001	0.010	0.995	0.016	-0.001	-0.06	0.95
27	60	-3.541	0.925	991.05	1515.5	522.6	100.5	0.923	1.00	1.002	0.007	0.998	0.016	-0.001	-0.06	0.92
28	60	-4.067	0.925	990.67	1514.6	521.7	100.4	0.918	0.99	1.001	0.014	0.993	0.019	-0.001	-0.05	1.08
29	60	-4.480	0.925	991.85	1515.5	522.6	100.5	0.921	1.00	1.001	0.010	0.995	0.016	-0.001	-0.07	0.92
30	60	-4.984	0.925	991.23	1513.0	521.5	100.3	0.923	1.00	1.004	0.011	0.998	0.016	-0.004	0.24	0.90
31	60	-4.585	0.925	991.42	1514.4	522.1	100.5	0.919	0.99	1.001	0.013	0.994	0.014	-0.002	-0.13	0.83
32	60	-5.348	0.925	991.50	1515.2	522.3	100.4	0.920	1.00	1.001	0.011	0.995	0.015	-0.003	-0.17	0.88

TEST NAME: 72 3.000 5.05 4 PLI 0.03 -14.00 5 401
 1F-645
 DATE: 4-14-77
 AEDC PROPUSSION WIND TUNNEL
 TRANSONIC 141

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	ST	4	W	PL	W	IT	ML	VTL/VW	PTL/PT	CPL	UT/VW	VI/VW	WI/VW	AATL	SATL
5	1	24.014	0.925	941.06	1403.5	511.3	89.2	0.919	1.000	0.012	0.991	0.008	0.083	4.79	0.47
7	2	23.554	0.925	941.14	1402.7	510.9	89.3	0.918	1.000	0.013	0.990	0.006	0.083	4.78	0.34
9	3	23.040	0.926	942.29	1402.5	511.2	89.7	0.921	1.000	0.009	0.992	0.006	0.083	4.80	0.35
11	4	22.537	0.926	941.56	1401.3	510.7	89.1	0.914	1.000	0.014	0.991	0.011	0.083	4.78	0.62
13	5	22.042	0.925	941.73	1400.0	510.4	89.4	0.920	1.000	0.011	0.991	0.008	0.083	4.76	0.46
15	6	21.540	0.925	941.57	1400.5	510.3	89.4	0.919	1.000	0.012	0.991	0.008	0.083	4.77	0.47
17	7	21.035	0.925	941.73	1400.1	510.2	89.4	0.920	1.001	0.011	0.991	0.008	0.083	4.76	0.49
19	8	20.524	0.925	941.14	1400.1	509.7	89.2	0.917	1.000	0.015	0.989	0.008	0.083	4.77	0.46
21	9	20.016	0.926	941.94	1400.9	510.0	89.3	0.919	1.000	0.014	0.990	0.008	0.083	4.78	0.46
23	10	19.534	0.925	941.75	1400.1	509.9	89.4	0.919	1.001	0.014	0.990	0.008	0.084	4.83	0.48
25	11	19.041	0.925	942.06	1400.8	510.5	90.2	0.919	1.001	0.012	0.991	0.009	0.083	4.79	0.50
27	12	18.531	0.925	941.82	1400.9	510.0	90.4	0.919	1.001	0.012	0.991	0.008	0.083	4.80	0.48
29	13	18.034	0.925	942.32	1401.1	510.4	90.4	0.916	1.001	0.014	0.990	0.008	0.082	4.76	0.48
31	14	17.515	0.925	942.11	1401.4	510.4	90.3	0.917	1.000	0.016	0.989	0.007	0.083	4.79	0.39
33	15	17.035	0.925	942.44	1401.7	510.5	90.7	0.917	1.000	0.015	0.989	0.008	0.083	4.80	0.49
35	16	16.531	0.925	942.49	1401.0	510.6	90.6	0.914	1.000	0.014	0.990	0.008	0.083	4.77	0.51
37	17	16.030	0.924	941.46	1401.7	510.2	90.7	0.915	1.000	0.019	0.987	0.008	0.082	4.77	0.48
39	18	15.530	0.925	942.09	1401.6	510.3	90.7	0.916	1.000	0.016	0.989	0.009	0.083	4.81	0.54
41	19	15.030	0.925	941.77	1401.5	510.2	90.4	0.914	1.000	0.020	0.987	0.008	0.084	4.86	0.47
43	20	14.530	0.925	942.54	1401.7	510.6	90.7	0.915	1.000	0.019	0.987	0.009	0.083	4.82	0.51
45	21	14.032	0.925	942.16	1401.7	510.4	90.6	0.914	1.000	0.020	0.987	0.008	0.085	4.91	0.48
47	22	13.545	0.925	942.14	1401.5	510.3	90.6	0.920	1.000	0.019	0.992	0.009	0.076	4.93	0.49
49	23	13.035	0.925	942.60	1402.0	510.7	90.8	0.914	1.000	0.018	0.987	0.009	0.086	5.00	0.52
51	24	12.534	0.924	941.46	1401.7	510.2	90.7	0.915	1.000	0.018	0.987	0.009	0.086	5.00	0.52
53	25	12.033	0.925	942.37	1401.4	510.4	90.7	0.915	1.000	0.018	0.987	0.009	0.087	5.04	0.49
55	26	11.534	0.925	942.29	1401.8	510.4	90.9	0.915	1.000	0.019	0.987	0.009	0.087	5.05	0.29
57	27	11.033	0.925	942.44	1401.9	510.5	90.9	0.914	1.000	0.020	0.987	0.005	0.087	4.85	0.53
59	28	10.543	0.925	942.25	1401.7	510.4	90.7	0.917	1.000	0.013	0.989	0.009	0.084	5.05	0.49
61	29	10.041	0.925	942.34	1401.7	510.5	90.7	0.917	1.000	0.015	0.989	0.009	0.088	5.07	0.49
63	30	9.536	0.925	942.23	1401.5	510.3	90.7	0.916	1.000	0.015	0.989	0.009	0.088	5.14	0.52
65	31	9.035	0.925	942.34	1401.7	510.5	90.7	0.916	1.000	0.012	0.990	0.009	0.089	5.14	0.52
67	32	8.535	0.925	942.01	1401.6	510.3	90.5	0.917	1.000	0.015	0.989	0.009	0.088	5.09	0.52
69	33	8.034	0.924	941.83	1401.5	509.9	90.9	0.917	1.000	0.013	0.990	0.009	0.088	5.10	0.52
71	34	7.530	0.924	941.58	1401.4	509.9	90.8	0.914	1.000	0.011	0.991	0.009	0.088	5.07	0.54
73	35	7.031	0.924	941.23	1401.1	509.6	90.7	0.914	1.000	0.012	0.990	0.009	0.088	5.08	0.52
75	36	6.534	0.927	944.06	1401.3	511.3	90.7	0.920	1.000	0.014	0.989	0.009	0.088	5.08	0.51
77	37	6.034	0.925	942.82	1401.7	510.4	90.6	0.914	1.000	0.013	0.990	0.009	0.089	5.13	0.52
79	38	5.534	0.925	942.29	1401.6	510.4	90.7	0.914	1.000	0.014	0.989	0.009	0.088	5.11	0.53
81	39	5.035	0.926	942.93	1401.7	510.4	90.7	0.914	1.000	0.012	0.990	0.009	0.089	5.11	0.52
83	40	4.537	0.924	941.77	1401.2	510.0	90.7	0.912	1.001	0.013	0.989	0.010	0.095	5.49	0.57
85	41	4.066	0.925	942.64	1402.1	510.6	91.1	0.919	1.001	0.011	0.990	0.009	0.093	5.37	0.54
87	42	3.533	0.925	942.34	1401.7	510.4	90.8	0.917	1.001	0.016	0.988	0.008	0.089	5.15	0.48
89	43	3.036	0.925	942.57	1401.6	510.5	90.8	0.915	1.000	0.019	0.986	0.008	0.090	5.19	0.44
91	44	2.535	0.925	942.76	1401.6	510.6	90.9	0.915	1.000	0.019	0.986	0.008	0.090	5.19	0.47
93	45	2.038	0.925	942.72	1401.9	510.5	91.1	0.915	1.000	0.019	0.987	0.009	0.090	5.20	0.51

TEST PART REF-6 ALPH 4-14-77

DATE 4-14-77

WIND SURVEY
WIND FLOW FIELD SURVEY SUMMARY

TEST PART REF-6 ALPH 4-14-77

WIND SURVEY
WIND FLOW FIELD SURVEY SUMMARY

POINT	GM	AT	N	VM	PT	U	IT	ML	VTL/VM	PIL/PT	CPL	UT/VM	VI/VM	WI/VM	ATL	SWTL
1	46	1.529	0.924	941.83	1481.3	510.0	90.7	0.913	0.99	1.000	0.020	0.986	0.008	0.091	5.27	0.49
3	47	1.044	0.925	942.07	1481.8	510.5	91.0	0.913	0.99	1.000	0.023	0.984	0.004	0.091	5.27	0.25
5	48	0.537	0.925	941.08	1482.1	510.2	90.9	0.915	0.99	1.001	0.017	0.988	0.009	0.091	5.27	0.51
7	49	0.021	0.923	940.48	1481.0	509.0	90.9	0.913	0.99	1.000	0.018	0.987	0.010	0.092	5.31	0.55
9	50	-0.459	0.925	942.47	1481.6	510.4	90.9	0.915	0.99	1.000	0.018	0.986	0.009	0.092	5.34	0.53
11	51	-0.963	0.925	942.40	1481.5	510.3	91.0	0.915	0.99	1.000	0.018	0.987	0.008	0.093	5.38	0.49
13	52	-1.474	0.925	942.54	1481.2	510.4	90.6	0.914	0.99	1.000	0.020	0.986	0.009	0.093	5.38	0.50
15	53	-1.965	0.924	941.92	1481.3	510.1	90.7	0.914	0.99	1.000	0.019	0.986	0.009	0.093	5.41	0.51
17	54	-2.469	0.925	942.17	1481.2	510.2	90.6	0.915	0.99	1.000	0.017	0.987	0.009	0.094	5.43	0.51
19	55	-2.973	0.925	941.48	1481.2	510.2	90.5	0.916	0.99	1.000	0.015	0.988	0.009	0.093	5.39	0.51
21	56	-3.470	0.925	942.77	1481.8	510.7	90.9	0.915	0.99	1.000	0.014	0.986	0.012	0.095	5.49	0.67
23	57	-3.972	0.925	942.15	1481.7	510.4	90.7	0.914	0.99	1.000	0.011	0.990	0.009	0.096	5.53	0.54
25	58	-4.472	0.925	942.74	1481.7	510.8	90.6	0.917	0.99	1.000	0.015	0.988	0.010	0.094	5.46	0.58
26	58	-4.922	0.925	942.64	1481.9	510.6	90.9	0.918	0.99	1.000	0.013	0.989	0.009	0.094	5.44	0.52
28	59	-4.926	0.925	942.77	1481.8	510.7	90.9	0.922	1.00	1.004	0.012	0.992	0.009	0.098	5.62	0.50

TEST NAME: MEXICO-6 ALPHA
 DATE: 9-14-77
 AEDC PROPELLSION WIND TUNNEL
 TRANSONIC 16T

POINT GP
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WIND SURVEY
 401
 WIND FLOW FIELD SURVEY SUMMARY

POINT GP	AL	W	V4	PT	U	FT	ML	VTL/VM	PIL/PT	CP/L	UI/VM	VT/VM	WI/VM	AATL	SWTL
1 25	4.047	0.425	942.51	1402.1	510.9	90.3	0.918	0.99	1.001	0.014	0.993	0.008	0.004	0.23	0.48
2 25	4.009	0.420	942.73	1400.0	510.9	90.2	0.917	0.99	1.001	0.017	0.992	0.008	0.004	0.24	0.47
3 25	3.018	0.420	943.46	1479.0	510.9	90.4	0.917	0.99	1.001	0.019	0.991	0.008	0.003	0.19	0.46
4 25	1.946	0.420	943.24	1477.7	509.9	90.1	0.917	0.99	1.001	0.018	0.991	0.008	0.003	0.15	0.47
5 25	0.929	0.420	941.02	1470.3	509.3	90.2	0.916	0.99	1.000	0.020	0.991	0.008	0.001	0.08	0.48
6 25	0.960	0.420	941.22	1474.3	509.0	90.3	0.914	0.99	1.000	0.023	0.989	0.008	0.001	0.06	0.44
7 25	0.957	0.427	943.32	1473.5	508.8	90.4	0.917	0.99	1.000	0.019	0.991	0.008	0.000	0.03	0.45
8 25	2.019	0.420	943.03	1471.5	507.7	90.1	0.915	0.99	1.000	0.021	0.990	0.004	-0.000	-0.02	0.45
9 25	3.068	0.427	943.75	1470.4	507.0	90.4	0.917	0.99	1.001	0.019	0.991	0.008	-0.000	-0.03	0.44
10 25	4.007	0.427	943.45	1468.5	507.1	90.2	0.918	0.99	1.000	0.017	0.991	0.007	-0.001	-0.05	0.39
11 25	4.954	0.424	940.90	1466.5	506.7	90.1	0.915	0.99	1.000	0.018	0.992	0.008	-0.002	-0.09	0.63
12 25	6.104	0.425	941.09	1466.9	506.5	90.3	0.917	0.99	1.000	0.015	0.993	0.008	-0.001	-0.04	0.45
13 25	7.040	0.425	941.68	1468.2	506.3	90.3	0.916	0.99	1.000	0.016	0.992	0.008	-0.000	-0.02	0.44
14 25	8.032	0.425	941.47	1461.9	503.5	90.0	0.915	0.99	1.000	0.017	0.991	0.008	-0.001	-0.04	0.45
15 25	8.961	0.424	941.62	1462.4	503.6	90.4	0.916	0.99	1.001	0.016	0.993	0.008	-0.001	-0.09	0.45
16 25	10.062	0.424	941.30	1462.1	503.3	90.3	0.915	0.99	1.000	0.017	0.992	0.008	-0.001	-0.09	0.47
17 25	10.946	0.424	941.22	1462.0	503.3	90.1	0.914	0.99	1.000	0.019	0.990	0.007	-0.002	-0.12	0.42
18 25	12.930	0.424	941.17	1468.0	503.8	90.4	0.917	0.99	1.001	0.014	0.994	0.008	-0.005	-0.31	0.47
19 25	12.949	0.423	940.47	1468.3	503.9	90.1	0.915	0.99	1.001	0.018	0.992	0.009	-0.004	-0.21	0.50
20 25	13.941	0.423	940.62	1468.8	505.5	90.3	0.916	0.99	1.001	0.016	0.993	0.011	-0.005	-0.28	0.61
21 25	14.966	0.424	940.43	1470.4	505.1	90.4	0.921	1.00	1.003	0.011	0.997	0.008	-0.005	-0.31	0.48
22 25	15.959	0.425	941.80	1470.4	506.5	90.3	0.917	0.99	1.001	0.015	0.993	0.008	-0.005	-0.31	0.44
23 25	16.961	0.425	941.65	1471.3	506.8	90.0	0.919	0.99	1.001	0.013	0.994	0.009	-0.007	-0.39	0.50
24 25	17.944	0.425	942.08	1473.3	507.6	90.4	0.919	0.99	1.001	0.012	0.995	0.008	-0.006	-0.36	0.47
25 25	19.052	0.425	941.98	1473.1	507.6	90.2	0.918	0.99	1.001	0.014	0.993	0.008	-0.007	-0.39	0.43
26 25	19.962	0.425	942.31	1473.2	507.7	90.4	0.918	0.99	1.000	0.014	0.993	0.008	-0.007	-0.39	0.47
27 25	21.023	0.425	942.14	1472.2	507.3	90.3	0.915	0.99	1.000	0.020	0.990	0.002	-0.007	-0.40	0.12
28 25	22.001	0.425	942.12	1472.0	507.2	90.4	0.917	0.99	1.000	0.014	0.993	0.008	-0.007	-0.42	0.48
29 25	22.977	0.425	942.23	1471.3	507.1	90.1	0.921	1.00	1.001	0.008	0.996	0.012	-0.007	-0.39	0.68
30 25	24.047	0.425	942.42	1471.5	507.2	90.4	0.920	1.00	1.001	0.011	0.995	0.008	-0.006	-0.36	0.47

TEST NAME HEX-10-0 ALPHA 4-10-77

DATE 4-10-77

WATER FLOWFIELD SURVEY SUMMARY

TEST NAME HEX-10-0 ALPHA 4-10-77

DATE 4-10-77

POINT	GP	X1	Y1	Z1	WT	ML	VTL/VM	VTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
1	25	23.909	0.929	985.74	1477.0	511.2	90.7	0.935	1.01	1.003	-0.006	1.005	0.017	0.020
2	25	22.982	0.928	985.07	1469.0	511.5	90.7	0.928	1.00	1.002	0.002	1.000	0.013	0.021
3	25	21.171	0.928	985.34	1471.5	510.4	90.4	0.920	0.99	1.000	0.016	0.992	0.018	0.020
4	25	20.941	0.926	983.40	1473.9	509.6	90.3	0.920	0.99	1.000	0.012	0.994	0.020	0.020
5	25	19.856	0.926	983.21	1470.5	507.2	90.5	0.922	1.00	1.000	0.008	0.996	0.018	0.023
6	25	18.945	0.926	982.44	1467.0	505.8	90.5	0.920	0.99	1.000	0.011	0.995	0.014	0.020
7	25	18.044	0.926	983.13	1466.4	505.8	90.4	0.929	1.00	1.001	-0.005	1.003	0.019	0.019
8	25	16.950	0.926	983.14	1468.2	506.5	90.4	0.939	1.01	1.000	-0.022	1.011	0.020	0.007
9	25	16.045	0.926	983.45	1470.1	507.1	90.7	0.932	1.01	1.001	-0.009	1.005	0.021	0.016
10	25	14.890	0.925	982.42	1471.5	507.2	90.4	0.929	1.00	1.001	-0.006	1.003	0.026	0.013
11	25	13.641	0.925	982.04	1473.1	507.3	90.7	0.929	1.00	1.001	-0.006	1.004	0.020	0.012
12	25	13.002	0.924	981.33	1474.9	507.7	90.4	0.923	1.00	1.001	0.004	0.999	0.023	0.010
13	25	11.918	0.924	981.82	1479.4	509.4	90.7	0.925	1.00	1.001	0.001	1.000	0.023	0.010
14	25	10.878	0.923	980.89	1482.2	509.8	90.6	0.922	1.00	1.001	0.005	0.998	0.022	0.008
15	25	9.893	0.922	979.96	1482.6	509.5	90.5	0.919	1.00	1.001	0.008	0.997	0.022	0.006
17	25	8.978	0.924	981.71	1483.8	510.9	90.5	0.924	1.00	1.001	0.003	0.999	0.018	0.007
18	25	8.062	0.924	981.87	1483.0	510.8	90.7	0.921	1.00	1.001	0.007	0.997	0.022	0.007
19	25	6.896	0.924	981.92	1481.1	510.1	90.6	0.917	0.99	1.000	0.014	0.993	0.025	0.007
20	25	6.211	0.925	982.49	1479.7	510.0	90.5	0.921	1.00	1.000	0.009	0.995	0.022	0.006
21	25	4.896	0.925	982.45	1478.8	509.5	90.7	0.921	1.00	1.001	0.009	0.996	0.022	0.006
22	25	3.945	0.925	982.86	1477.3	509.3	90.7	0.920	1.00	1.001	0.010	0.995	0.023	0.006
23	25	2.865	0.925	982.51	1475.0	508.6	90.6	0.918	0.99	1.001	0.015	0.993	0.022	0.006
24	25	1.934	0.924	981.46	1473.8	507.5	90.6	0.914	0.99	1.000	0.019	0.990	0.022	0.004
25	25	1.025	0.925	982.19	1472.5	507.3	90.6	0.916	0.99	1.000	0.018	0.991	0.021	0.005
26	25	-0.083	0.925	982.13	1471.7	506.9	90.6	0.917	0.99	1.000	0.015	0.993	0.018	0.006
27	25	-1.129	0.924	981.08	1469.2	505.8	90.6	0.916	0.99	1.000	0.016	0.992	0.022	0.005
28	25	-2.077	0.925	982.40	1468.5	506.1	90.5	0.910	0.99	0.995	0.019	0.986	0.020	-0.003
29	25	-2.872	0.924	981.96	1468.8	505.1	90.7	0.916	0.99	1.000	0.017	0.992	0.019	0.006
30	25	-4.092	0.925	982.23	1467.1	505.4	90.7	0.918	0.99	1.001	0.014	0.994	0.018	0.006
31	25	-4.940	0.924	981.66	1466.4	505.0	90.4	0.918	0.99	1.001	0.013	0.994	0.018	0.006

TEST PART REF-10-6 ALPHM WING YI ZI RUN SURVEY
 1F-445 91 2.592 -5.02 4 PC1 -0.00 -14.14 5 503
 QUIER PLUNFIELD SURVEY SUMMARY

DATE 4-14-77
 AEDC PROPULSION WIND TUNNEL
 TRANSONIC 141

POINT GP	AI	M	VP	PI	U	TI	ML	VTL/VM	PIL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
1	24.004	0.926	982.04	1482.0	511.1	89.3	0.920	0.99	1.000	0.011	0.995	0.010	0.021	1.22	0.57
2	23.022	0.926	982.17	1482.4	511.3	89.7	0.923	1.00	1.001	0.006	0.997	0.010	0.021	1.20	0.55
3	21.943	0.925	981.42	1482.7	511.1	89.7	0.924	1.00	1.001	0.005	0.994	0.009	0.021	1.22	0.53
4	21.024	0.926	982.22	1482.9	511.3	89.8	0.926	1.00	1.001	0.001	1.000	0.010	0.022	1.25	0.55
5	20.057	0.925	981.64	1482.5	511.0	89.4	0.929	1.00	1.003	-0.006	1.003	0.014	0.022	1.24	0.81
6	19.029	0.926	982.42	1482.9	511.4	89.8	0.932	1.01	1.001	-0.011	1.004	0.009	0.022	1.22	0.49
7	18.024	0.926	981.95	1482.9	511.2	89.6	0.935	1.01	1.000	-0.016	1.004	0.011	0.021	1.22	0.61
8	17.031	0.926	982.66	1483.5	511.4	89.4	0.940	1.01	1.000	-0.026	1.013	0.013	0.019	1.09	0.62
9	16.005	0.925	981.55	1483.2	511.2	89.4	0.942	1.03	1.003	-0.061	1.033	0.010	0.018	0.99	0.54
10	14.964	0.926	981.99	1484.0	511.7	89.5	0.938	1.01	0.999	-0.025	1.004	0.009	0.010	0.59	0.56
11	13.941	0.925	981.58	1483.5	511.3	89.4	0.930	1.00	0.994	-0.014	1.004	0.009	0.008	0.43	0.54
12	12.970	0.926	982.67	1483.6	511.6	89.6	0.936	1.01	1.001	-0.017	1.009	0.010	0.005	0.29	0.55
13	12.023	0.926	982.51	1483.4	511.7	89.7	0.936	1.01	1.000	-0.017	1.009	0.007	0.004	0.23	0.39
14	11.011	0.926	982.25	1482.6	511.3	89.7	0.931	1.01	1.001	-0.010	1.005	0.010	0.002	0.12	0.55
15	10.033	0.926	981.97	1481.2	510.4	89.4	0.929	1.00	1.000	-0.006	1.003	0.010	0.002	0.09	0.56
16	9.030	0.926	982.39	1481.5	510.9	89.9	0.929	1.00	1.001	-0.006	1.003	0.007	0.001	0.08	0.38
17	7.947	0.927	983.44	1481.2	511.3	90.0	0.929	1.00	1.001	-0.003	1.002	0.010	0.001	0.05	0.56
18	7.031	0.924	981.31	1481.2	509.8	90.4	0.927	1.00	1.000	-0.004	1.002	0.009	-0.000	-0.01	0.54
19	6.053	0.923	981.04	1480.6	509.3	90.8	0.914	1.00	1.001	0.009	0.996	0.009	0.008	0.47	0.53
20	5.027	0.923	980.86	1479.6	508.9	90.7	0.922	1.00	1.000	0.003	0.999	0.009	-0.001	-0.06	0.51
21	4.008	0.923	981.15	1479.8	508.9	91.0	0.921	1.00	1.001	0.005	0.998	0.009	-0.001	-0.06	0.53
22	3.013	0.924	981.70	1479.2	509.2	90.8	0.920	1.00	1.001	0.009	0.996	0.009	-0.002	-0.11	0.54
23	2.036	0.924	981.84	1479.1	509.3	90.7	0.918	0.99	1.000	0.013	0.994	0.010	-0.000	-0.02	0.55
24	1.004	0.925	982.40	1478.9	509.4	90.9	0.916	0.99	1.000	0.016	0.992	0.009	-0.009	-0.01	0.53
25	0.042	0.924	982.62	1479.1	509.3	90.9	0.915	0.99	1.001	0.018	0.992	0.009	0.001	0.07	0.54
26	-0.976	0.925	982.19	1479.2	509.5	90.8	0.915	0.99	1.000	0.019	0.991	0.009	0.002	0.13	0.51
27	-1.976	0.924	981.61	1479.4	509.1	90.9	0.914	0.99	1.001	0.020	0.991	0.009	0.008	0.44	0.53
28	-2.960	0.925	982.38	1479.9	509.4	90.9	0.914	0.99	1.001	0.015	0.993	0.009	0.004	0.22	0.54
29	-3.997	0.924	981.77	1478.8	509.1	90.7	0.914	0.99	1.001	0.020	0.990	0.015	0.005	0.27	0.89
30	-4.944	0.924	982.04	1478.0	508.9	90.9	0.917	0.99	1.000	0.015	0.993	0.009	0.005	0.27	0.54
31	-5.941	0.924	981.99	1477.5	508.7	90.9	0.921	1.00	1.001	0.007	0.997	0.004	0.006	0.32	0.24

TEST PART REF 10-0 ALF 0.00 WIND Y 4.00 Z -1.02 RUN SURVEY DATE 4-13-77 AEDC PROPULSION WIND TUNNEL TRANSONIC 147

INNER FLOW FIELD SURVEY SUMMARY

POINT GP	X	Y	Z	U	W	V	PT	Q	TT	ML	VML/VM	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	AAL	SWL
1	0	19.013	0.976	1037.05	1485.6	537.9	100.6	0.914	0.95	0.997	0.102	0.946	0.010	0.016	0.010	0.016	0.97	0.58
2	0	19.013	0.975	1036.65	1486.1	537.9	100.4	0.911	0.94	0.995	0.103	0.944	0.009	0.013	0.009	0.013	0.81	0.50
3	0	18.663	0.976	1037.91	1487.4	536.9	100.8	0.915	0.95	0.995	0.100	0.946	0.011	0.014	0.011	0.014	0.85	0.64
4	0	18.313	0.977	1038.05	1490.0	540.0	100.6	0.915	0.95	0.994	0.098	0.946	0.009	0.012	0.010	0.012	1.03	0.75
5	0	18.018	0.976	1037.63	1488.7	538.5	100.8	0.935	0.96	0.993	0.061	0.966	0.017	0.027	0.017	0.027	1.59	0.84
6	0	17.635	0.975	1036.09	1485.7	537.8	100.5	1.126	1.13	0.995	-0.256	1.124	0.017	0.057	0.017	0.057	2.88	0.66
7	0	17.316	0.975	1035.37	1488.1	537.7	100.9	1.175	1.17	0.997	-0.332	1.164	-0.002	0.065	-0.002	0.065	3.21	0.11
8	0	17.004	0.975	1036.10	1488.7	538.5	100.5	1.144	1.14	0.995	-0.281	1.139	-0.008	0.039	-0.008	0.039	1.97	0.38
9	0	16.644	0.974	1035.44	1488.5	538.2	100.8	1.093	1.10	0.999	-0.199	1.099	-0.009	0.018	-0.009	0.018	0.92	0.49
10	0	16.316	0.974	1035.26	1488.4	538.0	100.5	1.057	1.07	1.000	-0.141	1.070	-0.003	0.008	-0.003	0.008	0.43	0.18
11	0	15.997	0.973	1034.56	1489.1	537.7	100.8	1.034	1.05	1.001	-0.102	1.052	-0.005	0.001	-0.005	0.001	0.08	0.25
12	0	15.651	0.974	1035.76	1490.8	539.0	100.8	1.012	1.03	1.000	-0.064	1.032	-0.003	0.003	-0.003	0.003	-0.36	0.17
13	0	15.317	0.974	1035.59	1489.4	538.4	100.7	1.002	1.02	1.000	-0.048	1.024	-0.001	0.001	-0.001	0.001	-0.44	0.06
14	0	15.018	0.974	1036.21	1489.3	538.6	100.9	0.998	1.02	1.000	-0.040	1.020	-0.001	0.015	-0.001	0.015	-0.82	0.04
15	0	14.653	0.974	1035.51	1487.8	537.8	100.7	0.983	1.01	1.000	-0.015	1.007	0.007	0.002	0.007	0.002	-1.22	0.10
16	0	14.329	0.974	1035.32	1488.0	537.7	100.8	0.979	1.00	1.000	-0.009	1.004	0.004	0.004	0.004	0.004	-1.44	0.23
17	0	14.010	0.974	1035.16	1487.7	537.5	100.8	0.973	1.00	1.000	0.000	0.999	0.004	0.004	0.004	0.004	-1.48	0.23
18	0	13.654	0.974	1035.76	1488.5	538.1	100.9	0.968	0.99	1.000	0.011	0.994	0.007	0.007	0.007	0.007	-1.78	0.39
19	0	13.324	0.974	1035.49	1488.7	538.3	100.8	0.962	0.97	1.000	0.056	0.971	0.011	0.036	0.011	0.036	-2.10	0.65
20	0	13.021	0.974	1035.75	1488.5	538.3	100.6	0.932	0.96	1.000	0.074	0.962	0.024	0.038	0.024	0.038	-2.29	1.06
21	0	12.648	0.974	1035.48	1488.1	537.9	100.7	0.929	0.96	1.001	0.080	0.960	0.032	0.031	0.032	0.031	-2.27	1.43
22	0	12.348	0.974	1035.73	1488.2	538.1	100.6	0.925	0.96	1.000	0.086	0.956	0.036	0.023	0.036	0.023	-1.85	1.88
23	0	11.978	0.974	1035.36	1488.4	538.1	100.4	0.928	0.96	1.001	0.082	0.959	0.031	0.015	0.031	0.015	-1.37	2.16
24	0	11.682	0.974	1035.59	1487.8	537.9	100.9	0.928	0.96	1.000	0.081	0.959	0.028	0.010	0.028	0.010	-0.91	1.87
25	0	11.338	0.974	1035.66	1487.7	537.9	100.6	0.929	0.96	1.000	0.080	0.960	0.024	0.007	0.024	0.007	-0.62	1.65
26	0	10.947	0.974	1035.20	1488.1	537.8	100.5	0.930	0.96	1.000	0.077	0.961	0.020	0.005	0.020	0.005	-0.40	1.42
27	0	10.547	0.974	1035.20	1488.1	537.8	100.5	0.930	0.96	1.000	0.077	0.961	0.020	0.005	0.020	0.005	-0.27	1.19

DATE 4-14-77 AEDC PROPULSION WIND TUNNEL
TRANSONIC 16T

DATE 4-14-77 AEDC PROPULSION WIND TUNNEL
TRANSONIC 16T

DATE 4-14-77 AEDC PROPULSION WIND TUNNEL
TRANSONIC 16T

INNER FLOWFIELD SURVEY SUMMARY

STATION	X	Y	PT	Q	TI	ML	VM/VM	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	AAL	SWL	
1	14.621	0.976	1027.91	1452.2	525.8	90.8	0.945	0.97	0.994	0.052	0.970	0.055	0.051	2.99	3.23
2	14.644	0.976	1027.79	1453.4	526.3	90.5	0.993	1.01	1.000	-0.030	1.011	0.057	0.054	3.07	3.21
3	14.662	0.976	1024.05	1454.8	526.4	90.7	1.010	1.03	0.998	-0.061	1.025	0.057	0.064	3.56	3.19
4	14.676	0.976	1024.24	1455.9	527.2	90.9	1.067	1.08	0.998	-0.156	1.072	0.058	0.074	3.97	3.08
5	17.644	0.971	1024.82	1455.7	527.5	90.8	1.079	1.09	0.998	-0.173	1.082	0.049	0.070	3.71	2.58
6	17.366	0.974	1026.09	1454.0	525.8	90.6	1.066	1.08	0.999	-0.158	1.075	0.042	0.064	3.41	2.24
7	17.024	0.975	1027.12	1455.1	526.4	90.9	1.055	1.07	1.000	-0.136	1.066	0.037	0.052	2.80	2.01
8	16.694	0.975	1027.11	1454.7	526.3	90.7	1.026	1.04	1.000	-0.046	1.042	0.035	0.035	1.94	1.44
9	16.345	0.975	1026.50	1454.3	526.1	90.5	0.992	1.01	1.000	-0.030	1.014	0.037	0.025	1.39	2.10
10	16.022	0.975	1026.94	1454.4	526.1	90.8	0.939	0.97	1.001	0.062	0.968	0.040	0.021	1.25	2.35
11	15.683	0.975	1027.12	1454.0	526.0	90.8	0.936	0.97	1.000	0.068	0.965	0.042	0.010	0.60	2.52
12	15.346	0.975	1026.90	1453.6	525.6	90.7	0.927	0.96	1.000	0.043	0.958	0.046	0.005	0.28	2.76
13	15.019	0.974	1026.53	1452.7	525.4	90.4	0.919	0.95	1.000	0.046	0.950	0.049	0.002	0.14	2.97
14	14.694	0.975	1027.36	1453.2	525.8	90.9	0.912	0.94	1.000	0.111	0.943	0.054	-0.001	-0.06	3.31
15	14.345	0.975	1027.61	1453.1	525.9	90.8	0.899	0.93	1.000	0.134	0.931	0.062	-0.005	-0.29	3.82
16	14.023	0.975	1027.09	1452.3	525.5	90.5	0.889	0.92	1.000	0.151	0.922	0.067	-0.002	-0.13	4.16
17	13.684	0.975	1027.35	1452.6	525.7	90.6	0.871	0.91	1.000	0.183	0.904	0.081	0.001	0.07	5.12
18	13.354	0.975	1027.37	1452.1	525.5	90.7	0.853	0.89	1.000	0.216	0.886	0.092	0.009	0.59	5.95
19	13.016	0.974	1026.71	1451.6	525.0	90.6	0.841	0.88	1.000	0.236	0.875	0.106	0.029	1.88	6.88
20	12.649	0.974	1026.53	1451.1	524.7	90.6	0.840	0.88	1.000	0.236	0.871	0.117	0.059	3.88	7.67
21	12.340	0.975	1026.92	1450.9	524.9	90.5	0.858	0.90	0.999	0.204	0.886	0.106	0.049	5.75	6.85
22	12.026	0.975	1027.17	1451.2	525.0	90.8	0.880	0.92	1.000	0.167	0.906	0.086	0.102	6.41	5.45
23	11.691	0.975	1027.33	1450.4	524.9	90.7	0.894	0.93	1.000	0.141	0.920	0.066	0.107	6.66	4.09
24	11.353	0.974	1026.52	1449.3	524.3	90.5	0.903	0.94	0.999	0.124	0.929	0.056	0.107	6.57	3.47
25	11.024	0.974	1026.95	1449.9	524.4	90.9	0.909	0.94	1.000	0.113	0.936	0.043	0.106	6.47	2.65

TEST NAME: 87 25992 -5.11 6 PCF 4.00 -1.09 4 20A DATE: 4-14-77 AEDC PROPULSION WIND TUNNEL TRANSONIC 1A1

INNER FLOWFIELD SURVEY SUMMARY

POINT GP	X	Y	Z	U/V	W/V	P/T	PT	U/V	W/V	P/T	CPL	U/V	W/V	VL/VH	WL/VH	AL/VH	SWL
5	14.014	0.975	1026.49	1452.4	525.5	89.9	0.920	0.96	0.991	0.067	0.958	0.958	-0.030	-0.024	-1.43	-1.42	
7	14.679	0.975	1026.65	1453.4	525.0	90.1	0.929	0.96	0.990	0.063	0.959	0.959	-0.028	-0.027	-1.64	-1.64	
9	14.354	0.975	1026.39	1454.8	526.2	90.0	0.936	0.97	0.993	0.060	0.964	0.964	-0.023	-0.026	-1.56	-1.37	
11	14.014	0.975	1025.92	1455.5	526.4	89.4	1.154	1.15	0.991	-0.323	1.151	1.151	-0.010	-0.016	-0.79	-0.49	
13	14.014	0.975	1026.37	1455.4	526.6	89.5	1.250	1.23	0.996	-0.461	1.224	1.224	-0.014	0.064	3.19	-0.44	
15	17.341	0.975	1026.61	1455.5	526.8	89.7	1.248	1.22	0.994	-0.445	1.217	1.217	-0.040	0.056	2.61	-1.89	
17	17.004	0.975	1027.61	1455.3	527.2	89.9	1.235	1.21	0.991	-0.422	1.207	1.207	-0.044	0.031	1.49	-2.04	
19	16.647	0.975	1027.74	1453.7	526.6	90.0	1.219	1.20	0.993	-0.397	1.195	1.195	-0.044	0.022	1.07	-2.09	
21	16.335	0.975	1027.50	1451.9	525.9	89.9	1.201	1.18	0.993	-0.370	1.182	1.182	-0.043	0.004	0.17	-2.09	
23	15.990	0.975	1027.04	1450.5	525.2	89.8	1.193	1.18	0.994	-0.358	1.176	1.176	-0.043	-0.004	-0.21	-2.10	
25	15.685	0.975	1026.98	1449.3	524.4	89.7	1.183	1.17	0.995	-0.343	1.169	1.169	-0.046	-0.012	-0.57	-2.25	
27	15.351	0.975	1026.46	1448.7	524.3	89.7	1.169	1.16	0.996	-0.322	1.158	1.158	-0.047	-0.023	-1.15	-2.31	
29	15.014	0.975	1026.45	1450.1	524.9	89.9	1.155	1.15	0.996	-0.300	1.147	1.147	-0.051	-0.033	-1.64	-2.54	
31	14.669	0.975	1026.46	1452.9	525.6	90.1	1.156	1.15	0.996	-0.302	1.148	1.148	-0.053	-0.038	-1.47	-2.63	
33	14.347	0.975	1026.20	1454.6	526.1	90.1	1.153	1.15	0.997	-0.297	1.145	1.145	-0.057	-0.044	-2.21	-2.47	
35	14.006	0.975	1026.76	1454.9	526.6	89.9	1.143	1.14	0.996	-0.290	1.135	1.135	-0.062	-0.053	-2.47	-3.10	
37	13.681	0.975	1026.37	1453.6	526.1	89.6	1.131	1.13	0.996	-0.276	1.126	1.126	-0.065	-0.057	-2.91	-3.29	
39	13.330	0.975	1026.83	1453.2	526.1	89.8	1.205	1.19	0.993	-0.374	1.182	1.182	-0.049	-0.054	-2.63	-4.28	
41	13.015	0.975	1027.14	1452.6	525.9	90.0	1.194	1.18	0.998	-0.356	1.164	1.164	-0.116	-0.121	-5.95	-5.67	
43	12.692	0.975	1027.78	1451.9	525.9	90.1	1.150	1.13	0.999	-0.256	1.113	1.113	-0.000	-0.165	-4.46	-4.13	
45	12.345	0.975	1026.45	1450.9	525.2	89.9	1.032	1.05	0.999	-0.098	1.035	1.035	-0.030	-0.164	-4.98	-1.67	
47	12.015	0.975	1026.28	1449.4	524.7	89.5	0.965	0.99	1.000	0.016	0.981	0.981	0.003	-0.146	-4.45	0.15	
49	11.669	0.975	1026.77	1450.0	524.9	89.7	0.939	0.97	1.000	0.064	0.959	0.959	0.013	-0.130	-7.70	0.81	
51	11.348	0.975	1026.98	1449.5	524.6	89.9	0.934	0.96	1.000	0.071	0.957	0.957	0.019	-0.119	-7.11	1.11	
53	11.016	0.975	1026.75	1448.9	524.4	90.0	0.932	0.96	1.000	0.075	0.956	0.956	0.019	-0.113	-6.72	1.13	

TEST PART WELDING ALFMM WINDS Y Z MINS SURVEY DATE AEC PROPUSSION WIND TUNNEL
 IF-445 61 2.993 -0.01 4 PCT -4.60 -1.00 -4 212 4-13-77 TRANSONIC 161

INNER FLOW FIELD SURVEY SUMMARY

POINT GP	X	N	V1	PT	Q	TT	VL	VM/VL	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	ACL	SWL
4	0	11.025	0.974	1035.43	1487.4	537.6	101.0	0.924	0.96	1.000	0.079	0.960	-0.003	-0.000	-0.01 -0.17
5	0	12.351	0.974	1035.39	1487.4	537.6	100.7	0.923	0.96	1.000	0.049	0.956	-0.015	-0.012	-0.69 -0.88
6	0	13.650	0.974	1035.38	1491.0	539.0	100.7	0.931	0.96	0.998	0.073	0.962	0.002	-0.028	-1.69 0.12
7	0	15.027	0.973	1035.28	1492.8	539.4	100.9	0.978	1.00	1.000	-0.009	1.004	0.018	-0.016	-0.93 1.03
8	0	16.321	0.974	1036.11	1492.0	539.6	100.7	1.046	1.06	0.999	-0.121	1.060	0.027	0.009	0.49 1.48
9	0	17.645	0.974	1035.54	1483.6	538.0	100.9	1.118	1.12	0.995	-0.246	1.119	0.019	0.041	2.12 0.98
10	0	19.014	0.974	1035.98	1486.5	537.6	100.7	0.925	0.96	0.995	0.077	0.957	0.011	-0.005	-0.29 0.63

TEST POINT MEASURED ALPHA

47 2.997

0.014 PCL

YI -0.02

ZI -14.17

MUN 5

SURVEY 401

DATE 4-13-77

AEDC PROPULSION WIND TUNNEL
TRANSONIC 16T

INTER FLOW FIELD SURVEY SUMMARY

POINT	GM	AL	M	V ₀	PT	M	TT	ML	VTL/VM	PIL/PT	CPL	UT/VM	VT/VM	WI/VM	AATL	SWTL
5	49	0.047	0.976	1027.67	1453.6	526.4	90.4	0.943	0.97	1.001	0.057	0.972	0.005	0.000	0.03	0.32
7	50	-0.462	0.976	1027.62	1453.6	526.4	90.1	0.943	0.97	1.000	0.057	0.972	0.005	0.002	0.11	0.32
9	51	-0.957	0.976	1027.36	1453.4	526.2	90.1	0.944	0.97	1.000	0.056	0.972	0.005	0.002	0.09	0.32
11	52	-1.454	0.976	1027.24	1453.0	526.0	90.2	0.942	0.97	1.000	0.058	0.971	0.005	0.002	0.12	0.31
13	53	-1.960	0.976	1027.44	1453.3	526.1	90.4	0.943	0.97	1.001	0.057	0.972	0.006	0.005	0.31	0.32
15	54	-2.453	0.976	1027.30	1453.2	526.1	90.2	0.954	0.99	1.001	0.031	0.985	0.006	0.003	0.15	0.34
17	55	-2.956	0.975	1027.08	1452.8	525.8	90.2	0.944	0.97	1.000	0.055	0.972	0.004	0.003	0.20	0.26
19	56	-3.471	0.975	1026.97	1452.6	525.7	90.2	0.944	0.97	1.000	0.055	0.973	0.006	0.004	0.23	0.35
21	57	-3.962	0.975	1026.93	1452.4	525.8	90.3	0.962	0.99	1.001	0.023	0.984	0.004	0.004	0.20	0.21
23	58	-4.469	0.975	1026.97	1452.4	525.7	90.1	0.959	0.99	1.001	0.028	0.986	0.006	0.004	0.23	0.32
25	59	-4.964	0.975	1026.85	1452.2	525.5	90.2	0.961	0.99	1.000	0.026	0.987	0.006	0.004	0.25	0.33
27	60	-5.469	0.975	1026.81	1452.4	525.5	90.3	0.961	0.99	1.000	0.025	0.988	0.006	0.004	0.25	0.33
29	61	-5.966	0.975	1026.86	1452.6	525.6	90.4	0.961	0.99	1.000	0.025	0.988	0.006	0.004	0.25	0.37

TEST	PART	WE110-6 ALPDM	WIND	YF	WT	ZT	RUN SURVEY	DATE	AEC PROPULSION WIND TUNNEL						
7F-005	56	3.000	-0.01 & 0.01	16.16	-0.04	5	403	4-11-77	TRANSONIC 16T						
OUTLINE FLOWFIELD SURVEY SUMMARY															
POINT GM	AT	M	VM	PT	U	TT	ML	VTL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
1	60	24.987	0.975	1026.10	1453.9	526.5	89.6	0.963	1.001	0.022	0.999	0.011	0.003	0.718	0.63
2	60	23.506	0.975	1026.31	1453.5	526.0	89.6	0.959	1.000	0.029	0.986	0.009	0.004	0.25	0.51
3	60	23.506	0.975	1026.11	1453.3	525.9	89.4	0.961	1.001	0.026	0.987	0.011	0.005	0.27	0.62
4	60	22.506	0.976	1026.72	1453.7	526.4	89.4	0.960	1.001	0.026	0.986	0.011	0.005	0.24	0.61
5	60	22.934	0.976	1026.77	1453.8	526.3	89.6	0.958	1.001	0.031	0.985	0.011	0.004	0.26	0.61
6	60	21.442	0.976	1026.67	1453.2	526.2	89.4	0.968	1.000	0.031	0.993	0.010	0.012	0.70	0.59
7	60	20.978	0.976	1027.21	1453.7	526.6	89.5	0.959	1.001	0.031	0.985	0.010	0.005	0.27	0.58
8	60	20.977	0.976	1027.62	1453.4	526.5	89.5	0.944	1.001	0.057	0.972	0.009	0.005	0.27	0.51
9	60	20.976	0.976	1026.63	1453.1	526.1	89.5	0.944	1.000	0.056	0.972	0.009	0.005	0.27	0.51
10	60	19.438	0.976	1026.60	1452.4	526.2	89.4	0.961	1.000	0.026	0.967	0.008	0.005	0.26	0.45
11	60	19.438	0.976	1027.10	1453.3	526.4	89.4	0.972	1.001	0.009	0.996	0.006	0.007	0.40	0.33
12	60	18.504	0.976	1026.76	1452.8	526.2	89.1	0.965	1.001	0.015	1.008	0.006	0.010	0.58	0.33
13	60	18.504	0.976	1026.76	1453.4	526.5	89.6	0.995	1.001	0.032	1.016	0.010	0.010	0.58	0.55
14	60	17.400	0.976	1026.74	1453.0	526.1	89.4	0.984	1.001	0.020	1.010	0.012	0.009	0.50	0.67
15	60	16.532	0.975	1025.99	1452.3	525.7	89.4	0.972	1.000	0.006	0.997	0.018	0.008	0.44	1.04
16	60	16.532	0.976	1026.53	1452.8	526.1	89.7	0.979	1.001	0.005	1.003	0.017	0.007	0.38	0.95
17	60	16.973	0.975	1026.55	1452.5	525.7	89.7	0.970	1.001	0.010	0.995	0.019	0.007	0.38	1.11
18	60	15.551	0.975	1026.31	1452.7	525.0	89.5	0.973	1.001	0.005	0.998	0.018	0.005	0.30	1.04
19	60	15.552	0.976	1026.56	1452.3	525.5	89.3	0.976	1.000	0.005	0.998	0.018	0.005	0.30	1.04
20	60	15.557	0.976	1027.00	1452.4	526.1	89.4	0.970	1.000	0.010	0.995	0.019	0.005	0.29	1.08
21	60	13.531	0.975	1026.54	1452.3	525.7	89.6	0.944	0.999	0.054	0.972	0.017	0.006	0.34	1.00
22	60	13.530	0.976	1027.14	1452.4	526.1	89.6	0.969	1.002	0.015	0.993	0.017	0.006	0.34	1.00
23	60	12.461	0.977	1027.56	1452.4	526.5	89.5	0.967	1.001	0.018	0.992	0.017	0.005	0.27	0.97
24	60	12.462	0.975	1026.66	1452.3	525.7	8								

TEST PART REFLOG ALPHM ALPHM SURVEY DATE AEDC PROPULSION WIND TUNNEL
 IF-445 74 2.091 5.07 & PCT 0.02 -14.05 5 401 4-14-77 TRANSONIC 147

UNITED FLIGHT PLAN SURVEY SUMMARY

POINT GP	AT	N	VM	PT	W	IT	HL	VTL/VM	WIL/PT	CPL	UT/VM	VT/VM	WI/VM	AATL	SMIL
5	1	24.000	0.975	1027.43	1454.2	526.3	90.4	0.972	1.00	1.000	0.996	0.005	0.085	4.91	0.31
7	2	24.531	0.975	1027.44	1454.3	526.4	90.7	0.975	1.00	1.000	0.996	0.006	0.085	4.88	0.36
9	3	23.045	0.976	1028.07	1456.1	527.4	90.7	0.975	1.00	1.000	0.996	0.004	0.085	4.87	0.25
11	4	22.540	0.975	1026.44	1456.1	525.7	90.7	0.971	1.00	1.000	0.993	0.007	0.086	4.93	0.38
13	5	22.039	0.975	1025.45	1455.3	526.4	90.6	0.981	1.00	1.000	1.002	0.010	0.086	4.88	0.58
15	6	21.534	0.975	1027.43	1455.3	526.6	90.7	0.978	1.00	1.000	0.998	0.007	0.086	4.94	0.42
17	7	21.036	0.975	1027.59	1455.4	526.8	90.7	0.983	1.00	1.000	1.003	0.007	0.086	4.93	0.41
19	8	20.545	0.975	1027.47	1455.4	526.4	91.0	1.008	1.00	1.000	1.024	0.007	0.086	4.82	0.41
21	9	20.033	0.975	1027.21	1454.7	526.4	90.7	0.986	1.00	1.000	1.007	0.007	0.084	4.74	0.39
23	10	19.530	0.975	1027.00	1454.4	526.2	90.4	0.987	1.00	1.000	1.007	0.007	0.084	4.79	0.39
25	11	19.026	0.975	1027.16	1454.4	526.2	90.8	0.985	1.00	1.000	1.006	0.007	0.083	4.72	0.40
27	12	18.542	0.975	1027.44	1454.6	526.4	90.8	0.980	1.00	1.000	1.001	0.004	0.082	4.67	0.25
29	13	18.036	0.975	1027.22	1453.8	526.1	90.5	0.977	1.00	1.000	0.998	0.005	0.081	4.63	0.31
31	14	17.521	0.975	1027.61	1454.0	526.3	90.8	0.976	1.00	1.000	0.998	0.004	0.081	4.62	0.45
33	15	17.045	0.976	1028.39	1454.0	526.5	90.9	0.973	1.00	1.000	0.994	0.007	0.080	4.63	0.39
35	16	16.541	0.976	1028.06	1454.1	526.6	90.6	0.964	0.99	1.001	0.987	0.012	0.081	4.67	0.68
37	17	16.023	0.976	1028.26	1451.6	526.5	90.7	0.968	0.99	1.000	0.990	0.007	0.080	4.64	0.41
39	18	15.528	0.976	1028.21	1453.3	526.3	90.4	0.963	0.99	1.000	0.986	0.007	0.081	4.71	0.43
41	19	15.031	0.976	1027.96	1453.4	526.2	90.9	0.944	0.97	1.000	0.970	0.005	0.081	4.40	0.28
43	20	14.536	0.976	1028.21	1453.3	526.3	90.9	0.972	1.00	1.001	0.993	0.007	0.080	4.61	0.42
45	21	14.022	0.976	1027.80	1452.7	526.0	90.6	0.958	0.99	1.000	0.982	0.007	0.083	4.84	0.40
47	22	13.538	0.976	1027.88	1452.7	525.9	90.8	0.942	0.97	1.000	0.967	0.008	0.083	4.92	0.50
49	23	13.033	0.975	1027.79	1452.9	525.9	90.9	0.944	0.97	1.000	0.969	0.007	0.085	4.99	0.39
51	24	12.543	0.976	1028.02	1452.4	526.0	90.7	0.945	0.97	1.000	0.955	0.007	0.085	5.02	0.42
53	25	12.034	0.976	1027.67	1452.1	525.7	90.6	0.958	0.99	1.000	0.941	0.007	0.086	5.02	0.42
55	26	11.532	0.976	1027.94	1452.4	526.0	90.8	0.954	0.99	1.000	0.942	0.008	0.086	5.03	0.44
57	27	11.033	0.975	1027.57	1452.5	525.7	90.9	0.961	0.99	1.000	0.944	0.008	0.089	5.14	0.44
59	28	10.531	0.976	1028.65	1452.3	526.2	90.8	0.967	0.99	0.999	0.988	0.008	0.087	5.05	0.45
61	29	10.029	0.977	1028.69	1452.7	526.6	90.4	0.971	0.99	1.000	0.991	0.007	0.089	5.12	0.41
63	30	9.529	0.974	1026.37	1452.1	524.9	90.9	0.970	1.00	1.000	0.993	0.007	0.089	5.11	0.43

AEDC PROPELLSION WIND TUNNEL
FRANCONIC 161

DATE
4-14-11

100-16904
A SURVEY OF THE

TEST NAME: HFA110-6 ALPINE 4/90
TF-605 75 20930 50/6 PSI

[illegible]

TEST PART HEX10-6 ALPHA WING 21 RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-445 H3 2.406 5.06 4 PCI 14.16 0.0 5 403 4-14-77 TRANSONIC 16T

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	AL	11	VM	MT	U	IT	ML	VTL/VM	PIL/PT	CPL	UT/VM	VT/VM	WI/VM	AATL	SWTL
1 25	-4.568	0.976	1027.48	1456.1	523.6	90.4	0.962	0.99	1.000	0.024	0.988	0.017	0.006	0.32	1.00
2 25	-3.556	0.974	1026.74	1444.5	522.4	90.7	0.960	0.99	1.000	0.025	0.988	0.017	0.006	0.32	0.99
3 25	-2.559	0.974	1025.79	1435.2	522.3	90.5	0.968	0.99	1.001	0.011	0.995	0.017	0.006	0.32	0.97
4 25	-2.074	0.975	1027.10	1446.9	523.5	90.7	0.968	0.99	1.001	0.016	0.992	0.017	0.005	0.31	1.00
5 25	-0.948	0.976	1027.60	1448.7	524.7	90.3	0.968	0.99	1.001	0.016	0.993	0.019	0.005	0.31	1.09
6 25	0.052	0.976	1027.12	1450.4	525.1	90.7	0.962	0.99	1.001	0.025	0.988	0.020	0.005	0.30	1.14
7 25	1.145	0.976	1027.54	1452.2	525.8	90.4	0.971	1.00	1.001	0.009	0.996	0.021	0.007	0.39	1.19
8 25	1.444	0.977	1029.06	1452.5	526.6	90.7	0.963	0.99	1.001	0.026	0.988	0.021	0.005	0.28	1.20
9 25	3.033	0.975	1026.54	1449.0	524.4	90.3	0.943	0.97	1.000	0.056	0.972	0.023	0.005	0.30	1.33
10 25	3.445	0.975	1027.40	1447.0	523.4	90.5	0.959	0.99	1.000	0.028	0.986	0.022	0.005	0.30	1.30
11 25	4.856	0.976	1027.62	1445.1	523.2	90.4	0.965	0.99	1.000	0.019	0.990	0.023	0.004	0.25	1.34
12 25	6.165	0.975	1027.17	1442.5	522.0	90.6	0.970	1.00	1.000	0.009	0.995	0.023	0.006	0.36	1.33
13 25	7.037	0.975	1026.60	1440.5	521.1	90.2	0.974	1.00	1.002	0.004	0.999	0.022	0.010	0.58	1.25
14 25	8.046	0.975	1027.59	1439.1	520.9	90.7	0.982	1.01	1.001	-0.011	1.006	0.019	0.006	0.35	1.10
15 25	9.029	0.975	1026.85	1437.4	519.4	90.7	0.973	1.00	1.001	0.004	0.998	0.018	0.006	0.36	1.04
16 25	10.024	0.975	1027.38	1435.4	519.7	90.5	0.976	1.00	1.001	0.000	1.000	0.020	0.008	0.48	1.16
17 25	10.966	0.974	1026.85	1435.6	519.2	90.4	0.969	1.00	1.001	0.011	0.995	0.021	0.006	0.36	1.22
18 25	11.946	0.975	1026.66	1435.2	519.2	90.4	0.965	0.99	1.001	0.017	0.992	0.022	0.007	0.41	1.29
19 25	13.041	0.975	1027.16	1435.6	519.5	90.6	0.964	0.99	1.001	0.021	0.990	0.023	0.006	0.35	1.34
20 25	14.017	0.975	1027.13	1439.9	521.0	90.7	0.980	1.00	1.001	-0.006	1.004	0.026	0.009	0.51	1.46
21 25	15.066	0.975	1027.39	1442.2	521.9	90.8	0.982	1.01	1.001	-0.009	1.005	0.027	0.010	0.55	1.52
22 25	15.995	0.975	1027.30	1442.4	522.3	90.4	0.981	1.00	1.001	-0.008	1.004	0.027	0.011	0.63	1.55
23 25	17.146	0.975	1027.53	1444.8	522.9	90.7	0.992	1.01	1.001	-0.027	1.014	0.026	0.014	0.79	1.46
24 25	17.919	0.975	1027.51	1445.3	523.1	90.7	1.011	1.03	1.001	-0.060	1.030	0.022	0.016	0.90	1.22
25 25	19.041	0.976	1028.20	1444.2	523.1	90.6	1.039	1.05	1.001	-0.105	1.053	0.014	0.020	1.08	0.76
26 25	19.783	0.976	1028.15	1443.2	522.7	90.6	1.060	1.07	1.000	-0.141	1.070	0.006	0.023	1.24	0.34
27 25	21.042	0.975	1027.18	1440.9	521.3	90.7	0.939	0.97	1.000	0.062	0.968	0.009	0.027	1.59	0.55
28 25	21.964	0.974	1026.35	1440.1	520.7	90.6	0.967	0.99	1.003	0.017	0.993	0.013	0.026	1.48	0.74
29 25	22.937	0.975	1026.72	1439.3	520.6	90.5	0.971	1.00	1.000	0.007	0.996	0.007	0.025	1.42	0.43
30 25	23.845	0.974	1026.75	1439.4	520.5	90.8	0.963	0.99	1.000	0.020	0.990	0.015	0.024	1.38	0.85

TEST PART MEX10-0 ALFUM W105
YF-445 85 2.997 -5.12 * PCI

DATE
4-14-77

AFDC PROPULSION WIND TUNNEL
TRANSONIC 14T

NUM SURVEY
5 501
JULIEM FLOWFIELD SUPPLY SUMMARY

POINT GP	XT	Y	VT	PT	W	TI	ML	VTL/VW	PIL/PT	CPL	UT/VW	VT/VW	WT/VW	AATL	SATL
0 25	-5.027	0.975	1027.14	1463.9	529.5	90.8	0.966	0.99	1.001	0.017	0.992	0.007	0.006	0.33	0.43
1 25	-4.104	0.975	1027.12	1460.4	521.2	90.5	0.972	1.00	1.001	0.007	0.997	0.008	0.006	0.33	0.46
2 25	-3.024	0.975	1027.12	1452.5	524.4	90.8	0.986	1.01	1.003	-0.020	1.012	0.008	0.005	0.29	0.46
4 25	-1.975	0.975	1026.14	1452.0	524.9	90.5	0.941	0.97	1.000	0.057	0.971	0.008	0.004	0.25	0.48
5 25	-1.066	0.975	1026.01	1452.3	524.9	90.6	0.985	0.99	1.001	0.016	0.992	0.010	0.004	0.22	0.58
6 25	-0.073	0.977	1024.74	1454.8	527.3	90.6	0.962	0.99	1.001	0.027	0.997	0.008	0.002	0.12	0.45
7 25	1.017	0.976	1024.53	1450.6	525.7	90.7	0.941	0.97	1.000	0.061	0.969	0.007	0.000	0.01	0.44
8 25	2.031	0.973	1025.31	1451.2	524.1	90.6	0.958	0.99	1.001	0.027	0.987	0.008	-0.000	-0.01	0.44
9 25	3.060	0.975	1027.67	1454.3	526.4	90.8	0.967	0.99	1.001	0.017	0.993	0.007	-0.002	-0.12	0.38
10 25	4.064	0.977	1024.78	1452.7	526.5	90.7	0.968	0.99	1.000	0.015	0.992	0.007	-0.003	-0.16	0.42
11 25	4.972	0.977	1024.60	1451.3	526.0	90.7	0.971	1.00	1.000	0.010	0.995	0.008	-0.003	-0.17	0.45
12 25	4.385	0.976	1024.12	1450.4	525.3	90.7	0.977	1.00	1.000	-0.001	1.001	0.007	-0.003	-0.14	0.43
14 25	6.989	0.975	1027.09	1452.3	525.5	90.6	0.992	1.01	1.001	-0.024	1.014	0.012	0.000	0.02	0.68
15 25	7.984	0.975	1027.14	1452.4	525.5	90.6	0.992	1.01	1.000	-0.029	1.015	0.005	0.002	0.11	0.26
16 25	8.979	0.976	1027.46	1451.7	525.6	90.4	0.985	1.01	1.000	-0.016	1.008	0.008	0.005	0.27	0.44
17 25	10.017	0.976	1027.84	1451.1	525.7	90.1	0.981	1.00	1.001	-0.007	1.004	0.008	0.002	0.14	0.45
18 25	10.983	0.975	1026.50	1450.6	524.9	89.8	0.988	0.99	1.000	0.013	0.994	0.007	0.002	0.12	0.41
19 25	11.982	0.974	1026.25	1450.9	524.8	90.1	0.977	1.00	1.001	-0.003	1.002	0.008	0.003	0.16	0.45
20 25	13.007	0.975	1026.36	1452.0	525.2	90.1	0.982	1.01	1.000	-0.013	1.007	0.008	0.002	0.13	0.43
21 25	13.991	0.975	1026.54	1452.7	525.6	90.1	0.992	1.01	1.001	-0.028	1.014	0.006	0.003	0.19	0.34
22 25	14.978	0.974	1025.66	1452.3	525.2	89.7	0.996	1.02	1.001	-0.036	1.018	0.008	0.006	0.32	0.47
23 25	15.973	0.975	1026.28	1453.3	525.6	90.1	1.002	1.02	1.001	-0.046	1.023	0.008	0.009	0.51	0.47
24 25	17.036	0.974	1025.72	1453.7	525.5	90.0	1.010	1.03	1.001	-0.060	1.030	0.009	0.014	0.80	0.49
25 25	17.940	0.974	1025.83	1454.1	525.7	90.1	1.018	1.04	1.000	-0.075	1.037	0.009	0.018	1.00	0.48
26 25	19.023	0.974	1025.52	1454.6	525.8	90.0	1.037	1.05	1.001	-0.107	1.054	0.009	0.024	1.31	0.48
27 25	20.019	0.974	1025.08	1454.5	525.6	89.7	1.048	1.06	1.000	-0.125	1.062	0.009	0.029	1.57	0.49
28 25	20.996	0.973	1024.92	1453.5	525.0	90.0	0.981	1.01	1.000	-0.014	1.006	0.007	0.032	1.84	0.43
29 25	22.024	0.973	1025.01	1453.5	525.0	90.1	0.937	0.97	1.000	0.062	0.968	0.008	0.028	1.65	0.45
30 25	22.975	0.974	1025.52	1452.6	525.1	89.9	0.938	0.97	1.000	0.061	0.969	0.007	0.025	1.49	0.43
31 25	24.063	0.973	1024.97	1451.4	524.4	89.8	0.941	0.97	1.000	0.057	0.971	0.008	0.024	1.40	0.45

TEST NAME: 25-3.000
 DATE: 4-12-77
 AEDC PROPULSION WIND TUNNEL
 TRANSONIC 161

TEST NAME: 25-3.000
 DATE: 4-12-77
 AEDC PROPULSION WIND TUNNEL
 TRANSONIC 161

INWET FLOWFIELD SURVEY SUMMARY

POINT GP	X	Y	Z	MM	SURVEY	PT	U	TT	ML	VML/VH	PTL/PT	CPL	UL/VH	VL/VH	WL/VH	TAL	SPL
1	18.457	1.024	1070.000	1433.5	541.1	89.9	1.010	0.99	0.99	0.99	0.99	0.022	0.988	0.011	0.002	0.11	0.64
2	18.483	1.025	1069.95	1433.1	540.6	89.8	0.994	0.97	0.97	0.97	0.99	0.047	0.974	0.015	0.010	0.60	0.86
3	18.040	1.026	1070.04	1435.6	542.0	89.7	1.134	1.09	1.09	1.09	0.994	-0.183	1.068	0.015	0.029	1.54	0.78
4	17.538	1.028	1072.43	1433.7	542.0	89.7	1.210	1.14	1.14	1.14	0.993	-0.283	1.137	-0.008	0.070	3.51	-0.39
5	17.036	1.023	1069.84	1433.8	540.2	89.7	1.188	1.11	1.11	1.11	0.994	-0.224	1.111	-0.005	0.044	2.25	-0.26
6	16.527	1.026	1071.01	1431.9	540.7	89.7	1.093	1.05	1.05	1.05	0.994	-0.107	1.053	-0.002	0.012	0.68	-0.13
7	16.036	1.028	1070.75	1434.5	541.2	89.6	1.046	1.02	1.02	1.02	0.999	-0.034	1.016	-0.002	-0.001	-0.03	-0.09
8	15.535	1.026	1071.21	1434.2	541.7	89.6	1.017	0.99	0.99	0.99	0.999	0.014	0.992	-0.001	-0.009	-0.51	-0.05
9	15.036	1.027	1071.84	1433.9	542.0	89.4	1.000	0.98	0.98	0.98	1.000	0.043	0.978	0.001	-0.020	-1.16	0.05
10	14.537	1.025	1070.20	1433.2	540.8	89.6	0.988	0.97	0.97	0.97	0.999	0.040	0.969	0.005	-0.027	-1.60	0.30
11	14.037	1.024	1069.58	1431.6	539.9	89.8	0.977	0.96	0.96	0.96	0.999	0.077	0.960	0.011	-0.034	-2.04	0.63
12	13.538	1.025	1070.56	1431.6	540.3	89.9	0.941	0.93	0.93	0.93	0.999	0.137	0.930	0.019	-0.040	-2.44	1.14
13	13.030	1.025	1070.54	1432.9	540.7	90.0	0.936	0.93	0.93	0.93	1.000	0.147	0.925	0.030	-0.038	-2.35	1.85
14	12.537	1.025	1069.50	1432.6	540.3	89.5	0.932	0.92	0.92	0.92	0.999	0.152	0.922	0.038	-0.026	-1.61	2.33
15	12.041	1.025	1070.31	1433.5	541.1	89.7	0.942	0.93	0.93	0.93	0.999	0.136	0.931	0.029	-0.014	-0.87	1.78
16	11.544	1.026	1070.87	1434.7	541.7	89.7	0.942	0.93	0.93	0.93	0.999	0.136	0.930	0.029	-0.008	-0.48	1.81
17	11.041	1.026	1071.33	1435.8	542.2	89.8	0.965	0.95	0.95	0.95	0.999	0.099	0.950	0.022	-0.005	-0.28	1.35
18	10.537	1.026	1070.66	1436.4	542.2	89.8	0.994	0.97	0.97	0.97	0.999	0.049	0.974	0.015	-0.002	-0.12	0.86

TEST PART MEX10-0 ALPHA 5.000 4 PCF 4.08 -0.96 4 308 DATE 4-12-77 AEDC PROPULSION WIND TUNNEL TRANSONIC 16T

INNER FLOWFIELD SURVEY SUMMARY

POINT	GP	X	Y	Z	TT	ML	VML/VW	PTL/PT	CPL	UL/VW	VL/VW	WL/VW	AAL	SWL		
7	1	19.027	1.025	1070.14	1432.5	540.4	89.4	1.034	1.01	0.994	-0.016	1.005	0.052	0.045	2.58	2.94
9	2	18.537	1.025	1070.06	1433.3	540.6	89.6	1.030	1.00	0.997	-0.011	1.001	0.053	0.052	2.96	3.01
11	3	18.029	1.027	1071.55	1420.9	539.9	89.5	1.120	1.07	0.999	-0.148	1.070	0.050	0.070	3.76	2.68
13	4	17.536	1.025	1070.20	1430.7	539.8	89.8	1.045	1.05	0.997	-0.100	1.045	0.040	0.058	3.20	2.19
15	5	17.026	1.025	1069.74	1436.9	542.0	89.5	1.061	1.03	0.999	-0.054	1.027	0.033	0.044	2.45	1.86
17	6	16.517	1.025	1070.36	1440.6	543.5	89.9	1.006	0.98	1.000	0.030	0.944	0.035	0.023	1.34	2.05
19	7	16.024	1.026	1071.08	1430.7	540.1	90.0	0.971	0.95	1.003	0.044	0.954	0.039	0.010	0.60	2.33
21	8	15.532	1.025	1069.82	1426.7	538.3	89.4	0.940	0.93	1.002	0.144	0.928	0.044	0.005	0.30	2.70
23	9	15.025	1.025	1070.00	1433.7	539.7	89.7	0.922	0.92	1.000	0.169	0.914	0.049	-0.002	-0.12	3.06
25	10	14.519	1.026	1070.75	1431.2	540.2	89.8	0.906	0.90	1.000	0.198	0.899	0.060	-0.007	-0.44	3.84
27	11	14.031	1.025	1070.10	1432.8	540.6	89.6	0.899	0.90	1.002	0.212	0.893	0.068	-0.000	-0.03	4.38
29	12	13.524	1.026	1070.58	1434.9	541.6	89.7	0.876	0.87	1.002	0.252	0.871	0.084	0.005	0.34	5.50
31	13	13.032	1.026	1071.29	1433.4	541.3	89.9	0.857	0.86	1.002	0.246	0.851	0.104	0.028	1.87	7.00
33	14	12.527	1.026	1070.97	1430.1	539.8	90.0	0.873	0.87	1.001	0.256	0.863	0.101	0.072	4.74	6.65
35	15	12.017	1.026	1071.01	1432.1	540.7	89.9	0.904	0.90	1.001	0.203	0.891	0.076	0.093	5.94	4.86
37	16	11.530	1.026	1070.46	1436.0	542.0	89.7	0.922	0.91	1.002	0.173	0.908	0.056	0.096	6.06	3.50
39	17	11.033	1.026	1071.18	1437.0	542.9	89.8	0.933	0.92	1.001	0.155	0.918	0.042	0.094	5.86	2.64
41	18	10.519	1.026	1070.82	1436.7	542.3	89.8	0.934	0.92	0.995	0.145	0.919	0.033	0.093	5.79	2.03

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TEST PART WXL0-B ALPHA WING Y 7 MIN SURVEY DATE AEDC PROPUSSION WIND TUNNEL
 TF-445 31 3.004 -5.07 4 PCI 4.07 -1.12 4 30H 4-12-77 TRANSONIC 161

INNER FLOWFIELD SURVEY SUMMARY

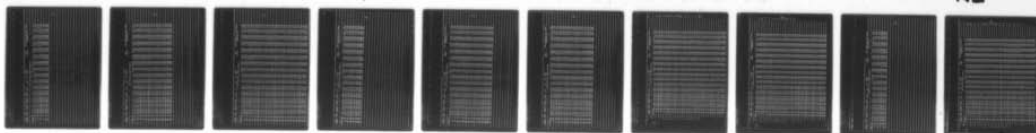
POINT GP	A	H	V ₀	PT	0	TT	ML	VML/V ₀	PIL/PT	CPL	UL/V ₀	VL/V ₀	WL/V ₀	AAL	SWL
11	19.159	1.026	1071.05	1436.2	542.2	90.0	1.017	0.99	0.995	0.004	0.992	-0.029	-0.033	-1.68	-1.68
13	18.508	1.026	1071.63	1435.8	542.3	90.1	0.976	0.96	0.978	0.051	0.938	-0.022	-0.029	-1.75	-1.32
36	17.971	1.025	1069.86	1433.1	540.7	89.5	1.289	1.20	0.979	-0.409	1.196	-0.035	0.075	3.61	-1.68
43	17.971	1.025	1070.20	1433.0	540.7	89.8	1.291	1.20	0.979	-0.411	1.197	-0.038	0.075	3.59	-1.82
47	17.971	1.025	1070.30	1433.4	540.8	89.9	1.290	1.20	0.979	-0.410	1.196	-0.034	0.075	3.61	-1.63
49	17.975	1.024	1069.24	1432.1	539.9	89.6	1.289	1.20	0.979	-0.410	1.196	-0.034	0.075	3.60	-1.63
51	17.521	1.025	1070.28	1432.6	540.4	90.1	1.273	1.19	0.982	-0.386	1.185	-0.037	0.062	3.01	-1.81
53	16.993	1.025	1069.49	1432.2	540.1	89.6	1.234	1.16	0.992	-0.324	1.159	-0.032	0.023	1.14	-1.60
55	16.524	1.025	1069.94	1432.5	540.2	90.0	1.220	1.15	0.994	-0.302	1.149	-0.038	0.008	0.38	-1.90
57	15.019	1.025	1070.44	1432.7	540.7	89.8	1.208	1.14	0.994	-0.285	1.140	-0.036	-0.005	-0.27	-1.81
59	15.506	1.026	1070.83	1432.9	540.9	89.9	1.201	1.14	0.996	-0.271	1.134	-0.046	-0.017	-0.85	-2.32
61	15.027	1.026	1071.29	1433.4	541.2	90.1	1.187	1.12	0.996	-0.251	1.123	-0.048	-0.030	-1.54	-2.46
63	14.521	1.025	1070.35	1433.1	540.8	89.7	1.182	1.12	0.996	-0.245	1.119	-0.054	-0.038	-1.95	-2.75
65	13.995	1.025	1070.79	1433.4	540.9	90.1	1.175	1.12	0.995	-0.236	1.114	-0.060	-0.050	-2.55	-3.10
67	13.521	1.025	1070.40	1433.2	540.9	89.7	1.226	1.15	0.988	-0.315	1.149	-0.085	-0.037	-1.86	-4.22
69	13.019	1.026	1071.29	1433.6	541.3	90.0	1.206	1.14	0.999	-0.273	1.123	-0.124	-0.139	-7.04	-6.29
71	12.512	1.026	1070.81	1433.8	541.4	89.5	1.065	1.03	1.000	-0.061	1.018	-0.029	-0.160	-8.94	-1.65
73	12.029	1.025	1070.51	1433.6	541.0	89.8	0.978	0.96	1.001	0.079	0.951	0.011	-0.140	-8.37	0.65
75	11.520	1.027	1071.90	1434.4	541.9	89.9	0.943	0.93	1.001	0.140	0.923	0.023	-0.120	-7.42	1.41
77	10.997	1.027	1071.66	1434.9	542.0	90.0	0.961	0.95	1.002	0.109	0.940	0.019	-0.109	-6.60	1.16

AD-A062 275

NIELSEN ENGINEERING AND RESEARCH INC MOUNTAIN VIEW CALIF F/G 1/3
DATA REPORT FOR A TEST PROGRAM TO STUDY TRANSONIC FLOW FIELDS A--ETC(U)
JUL 77 S C PERKINS, S S STAHARA, M J HEMSCH F44620-75-C-0047
NEAR-TR-138-VOL-6 AFOSR-TR-78-1490 NL

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TEST PART WEX10-6 ALFHM WING Y Z RUN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-445 63 3.012 -0.01 PCT -4.00 -1.00 4 312 4-13-77 TRANSONIC 1A7

THIR FLOWFIELD SURVEY SUMMARY

POINT	GP	X	M	V ₁	PT	Q	TT	AL	VML/VM	PTL/PT	CPL	UL/VM	VL/VM	WL/VM	AAL	SWL
1	0	10.002	1.024	1001.16	1400.1	556.1	100.6	1.018	0.99	1.000	0.012	0.993	0.010	0.028	1.60	0.57
3	0	10.002	1.024	1070.56	1471.6	556.6	100.1	1.034	1.01	1.000	-0.017	1.008	0.010	0.023	1.29	0.58
4	0	10.981	1.024	1000.37	1432.5	555.2	101.0	0.976	0.96	1.000	0.074	0.961	-0.003	0.002	0.12	-0.17
5	0	12.006	1.024	1000.20	1471.0	556.6	101.0	0.939	0.93	1.000	0.141	0.930	-0.016	-0.008	-0.47	-0.98
6	0	13.019	1.023	1074.36	1470.3	553.9	101.0	0.930	0.92	1.000	0.155	0.922	-0.014	-0.024	-1.51	-0.86
7	0	13.987	1.024	1073.69	1470.2	554.1	101.1	0.944	0.93	1.000	0.130	0.935	0.007	-0.021	-1.31	0.40
8	0	15.041	1.023	1074.44	1470.1	553.8	101.1	0.992	0.97	1.000	0.051	0.974	0.018	-0.013	-0.78	1.05
9	0	16.035	1.022	1077.76	1469.1	552.9	100.6	1.036	1.01	1.000	-0.023	1.011	0.021	0.002	0.13	1.20
10	0	17.036	1.021	1077.62	1472.2	553.9	100.6	1.156	1.11	0.994	-0.211	1.104	0.028	0.053	2.73	1.47
11	0	17.986	1.025	1080.17	1475.2	556.1	100.2	1.122	1.08	0.993	-0.161	1.076	0.009	0.034	1.82	0.48
12	0	19.009	1.026	1081.63	1474.8	556.9	100.6	1.034	1.01	0.999	-0.014	1.006	0.007	-0.004	-0.20	0.38

TEST PART NEXUS-6 ALPHA WIND TUNNEL AEDC PROPULSION WIND TUNNEL
 YF-445 64 3.006 -0.004 PC1 1.99 -0.40 4 30.7 TRANSONIC 161

DATE
 4-13-77

INNER FLOWFIELD SURVEY SUMMARY

POINT	GP	X	Y	Z	TT	ML	VML/VM	PTL/PT	CPL	UL/VM	VL/VM	HL/VM	AAL	SAL
2	0	19.000	1.021	1077.21	1471.6	553.5	100.5	100.5	1.056	1.03	1.028	0.013	0.012	0.67 0.73
3	0	19.651	1.026	1081.41	1473.6	556.2	100.6	100.6	1.060	1.03	1.027	0.014	0.015	0.85 1.01
4	0	18.333	1.027	1082.12	1472.7	556.3	100.7	100.7	1.051	1.02	1.019	0.024	0.022	1.21 1.35
5	0	18.070	1.027	1082.79	1472.3	556.5	100.7	100.7	1.051	1.02	1.031	0.034	0.033	1.84 1.91
6	0	17.850	1.027	1082.48	1471.4	555.9	100.8	100.8	1.049	1.05	1.048	0.039	0.043	2.35 2.14
7	0	17.316	1.027	1082.08	1470.5	555.6	100.3	100.3	1.096	1.05	1.053	0.035	0.041	2.25 1.93
8	0	16.946	1.027	1082.37	1470.5	555.6	100.6	100.6	1.094	1.05	1.052	0.029	0.037	2.03 1.56
9	0	16.645	1.026	1081.82	1469.6	555.0	100.7	100.7	1.086	1.05	1.047	0.021	0.029	1.60 1.17
10	0	16.336	1.026	1081.60	1468.6	554.5	100.7	100.7	1.075	1.04	1.039	0.016	0.021	1.13 0.88
11	0	16.031	1.026	1081.51	1469.0	554.4	100.6	100.6	1.065	1.03	1.031	0.012	0.013	0.70 0.67
12	0	15.657	1.027	1082.25	1469.5	555.1	100.7	100.7	1.046	1.02	1.015	0.009	0.000	-0.00 0.49
13	0	15.356	1.026	1081.47	1469.3	554.8	100.5	100.5	1.042	1.01	1.012	0.009	0.001	-0.04 0.49
14	0	15.042	1.027	1082.72	1471.2	556.1	100.6	100.6	1.023	1.00	0.996	0.005	0.012	-0.69 0.31
15	0	14.663	1.025	1080.25	1471.1	554.8	100.6	100.6	1.017	0.99	0.994	0.003	0.012	-0.71 0.20
16	0	14.303	1.025	1080.02	1471.6	555.1	100.2	100.2	1.012	0.99	0.990	0.002	0.017	-1.00 0.13
17	0	14.012	1.025	1080.08	1472.1	555.3	100.3	100.3	1.006	0.98	0.985	0.002	0.021	-1.19 0.09
18	0	13.637	1.025	1080.38	1472.5	555.6	100.1	100.1	0.996	0.98	0.976	0.001	0.024	-1.44 0.03
19	0	13.355	1.025	1080.29	1472.9	555.7	100.2	100.2	0.983	0.97	0.965	-0.001	0.031	-1.83 0.03
20	0	13.004	1.026	1081.72	1474.0	556.8	100.4	100.4	0.985	0.97	0.966	0.001	0.032	-1.89 0.08
21	0	12.676	1.026	1081.18	1474.1	556.5	100.4	100.4	0.975	0.96	0.958	0.000	0.036	-2.13 0.01
22	0	12.327	1.026	1081.51	1473.4	556.4	100.4	100.4	0.965	0.95	0.944	0.002	0.040	-2.39 0.11
23	0	12.007	1.026	1081.42	1473.6	556.4	100.4	100.4	0.959	0.95	0.929	0.006	0.042	-2.57 0.21
24	0	11.672	1.026	1081.79	1473.2	556.4	100.6	100.6	0.941	0.93	0.927	0.006	0.045	-2.75 0.37
25	0	11.317	1.027	1082.82	1473.1	556.7	100.4	100.4	0.940	0.93	0.927	0.013	0.044	-2.71 0.77
26	0	10.975	1.027	1082.31	1472.5	556.4	100.6	100.6	0.939	0.93	0.926	0.018	0.038	-2.35 1.09
27	0	10.649	1.027	1082.39	1471.7	556.2	100.3	100.3	0.970	0.95	0.953	0.021	0.025	-1.49 1.29
28	0	10.324	1.026	1083.07	1471.5	556.4	100.5	100.5	1.003	0.98	0.979	0.021	0.011	-0.62 1.25
29	0	9.994	1.027	1081.83	1470.2	555.5	100.1	100.1	1.020	0.99	0.994	0.019	0.003	-0.15 1.07

TEST NAME: AEC PROPUSSION WIND TUNNEL
 YF-445 DATE: 4-13-77
 AEC PROPUSSION WIND TUNNEL
 TRANSONIC 16T

WIND SURVEY
 401
 WIND FLOWFIELD SURVEY SUMMARY

POINT GP	AT	M	V1	PT	U	IT	ML	VTL/VM	PTL/PT	CPL	UI/VM	VI/VM	WI/VM	AATL	SWTL
1	24.017	1.025	1071.52	1427.5	539.3	89.9	0.997	0.98	1.000	0.049	0.976	0.004	0.003	0.16	0.26
2	23.540	1.025	1069.91	1435.5	541.5	89.8	1.004	0.98	1.000	0.034	0.983	0.005	0.007	0.41	0.30
3	23.030	1.025	1070.09	1432.4	540.6	89.4	1.045	1.05	0.999	-0.094	1.047	0.007	0.021	1.14	0.39
4	22.534	1.025	1069.71	1428.4	538.9	89.4	1.040	1.04	0.999	-0.049	1.044	0.006	0.020	1.11	0.35
5	22.034	1.025	1069.73	1429.4	539.2	89.5	1.073	1.04	1.000	-0.077	1.038	0.006	0.017	0.95	0.33
6	21.534	1.025	1070.04	1430.4	539.6	89.8	1.061	1.03	1.000	-0.057	1.029	0.005	0.014	0.79	0.29
7	21.033	1.025	1069.96	1431.0	539.9	89.6	1.052	1.02	1.000	-0.043	1.022	0.007	0.011	0.64	0.41
8	20.540	1.025	1069.63	1431.7	540.0	89.6	1.038	1.01	1.000	-0.021	1.011	0.005	0.011	0.61	0.29
9	20.039	1.025	1069.98	1432.2	540.2	89.9	1.030	1.00	1.000	-0.008	1.004	0.003	0.008	0.44	0.17
10	19.543	1.025	1070.34	1432.7	540.6	89.8	1.020	1.00	1.000	0.009	0.996	0.005	0.006	0.33	0.29
11	19.036	1.025	1069.69	1432.0	540.2	89.5	1.016	0.99	1.000	0.014	0.993	0.001	0.005	0.27	0.03
12	18.532	1.025	1069.78	1431.6	540.1	89.5	1.007	0.99	1.000	0.030	0.985	0.004	0.003	0.18	0.24
13	18.044	1.025	1069.92	1431.3	540.1	89.4	1.001	0.98	1.000	0.039	0.980	0.004	0.002	0.13	0.24
14	17.543	1.025	1069.81	1430.7	539.8	89.4	0.999	0.98	1.000	0.043	0.978	0.004	0.001	0.06	0.23
15	17.033	1.025	1070.13	1429.8	539.6	89.5	0.998	0.98	1.000	0.045	0.978	0.006	0.000	0.00	0.37
16	16.530	1.026	1070.62	1430.0	539.9	89.7	0.996	0.98	1.000	0.049	0.976	0.003	-0.000	-0.03	0.20
17	16.047	1.026	1071.25	1431.4	540.6	89.8	0.995	0.97	1.001	0.052	0.975	0.004	0.002	0.10	0.22
18	15.534	1.026	1071.18	1432.8	541.1	89.7	0.995	0.97	1.001	0.052	0.975	0.004	-0.002	-0.14	0.25
19	15.040	1.026	1071.11	1434.2	541.5	89.8	0.992	0.97	1.000	0.056	0.972	0.004	-0.004	-0.13	0.24
20	14.533	1.025	1069.71	1433.0	540.5	89.7	0.980	0.96	1.000	0.072	0.964	0.004	-0.004	-0.24	0.25
21	14.035	1.025	1069.57	1429.1	539.1	89.4	0.983	0.97	1.000	0.069	0.966	0.004	-0.002	-0.09	0.25
22	13.531	1.025	1069.47	1426.2	538.0	89.2	0.978	0.96	1.000	0.077	0.962	0.004	-0.001	-0.04	0.23
23	13.031	1.026	1070.21	1426.5	538.4	89.4	1.013	0.99	1.001	0.022	0.990	0.006	0.004	0.23	0.33
24	12.531	1.025	1070.35	1426.2	538.3	89.6	1.043	1.01	1.000	-0.028	1.014	0.006	0.010	0.54	0.35
25	12.032	1.026	1070.79	1425.7	538.2	89.7	1.045	1.01	1.000	-0.030	1.015	0.006	0.009	0.49	0.32
26	11.530	1.026	1070.52	1429.8	539.6	89.7	1.042	1.01	1.001	-0.026	1.013	0.005	0.007	0.42	0.29
27	11.040	1.025	1070.27	1433.9	541.0	89.8	1.013	0.99	0.996	0.014	0.991	0.005	0.006	0.36	0.28
28	10.534	1.026	1070.74	1435.6	541.8	89.9	1.030	1.00	1.000	-0.007	1.004	0.005	0.004	0.24	0.31
29	10.037	1.026	1070.61	1436.3	542.1	89.8	1.024	1.00	1.000	0.002	0.999	0.004	0.007	0.38	0.25
30	9.531	1.025	1069.78	1436.6	542.0	89.5	1.012	0.99	1.000	0.022	0.989	0.004	0.001	0.07	0.26
31	9.040	1.025	1069.74	1436.7	542.0	89.5	1.009	0.99	1.000	0.027	0.987	0.004	0.000	0.00	0.25
32	8.535	1.025	1070.11	1435.7	541.8	89.5	1.019	0.99	1.003	0.015	0.995	0.004	-0.002	-0.10	0.26
33	8.037	1.026	1070.33	1432.3	540.6	89.5	1.003	0.98	1.000	0.037	0.982	0.003	-0.002	-0.13	0.20
34	7.528	1.025	1070.12	1429.2	539.3	89.6	0.982	0.96	1.000	0.071	0.964	0.004	-0.009	-0.56	0.26
35	7.032	1.025	1070.41	1426.9	538.5	89.7	0.940	0.96	1.000	0.074	0.963	0.004	-0.010	-0.58	0.26
36	6.535	1.026	1071.00	1426.7	538.6	89.9	0.996	0.98	1.001	0.049	0.976	0.004	-0.004	-0.25	0.25
37	6.034	1.025	1070.11	1429.0	539.1	89.8	0.991	0.97	1.001	0.058	0.972	0.005	-0.005	-0.32	0.28
38	5.535	1.025	1070.42	1432.1	540.4	89.9	0.985	0.97	1.001	0.066	0.968	0.004	-0.005	-0.29	0.24
39	5.037	1.026	1070.68	1435.1	541.7	90.0	0.985	0.97	1.001	0.068	0.967	0.004	-0.005	-0.31	0.25
40	4.547	1.026	1070.75	1435.8	541.9	90.0	0.981	0.96	1.001	0.073	0.964	0.004	-0.004	-0.25	0.25
41	4.038	1.026	1070.75	1436.0	542.0	89.9	0.977	0.96	1.000	0.080	0.960	0.004	-0.005	-0.29	0.26
42	3.536	1.025	1069.95	1435.4	541.5	89.7	0.977	0.96	1.000	0.079	0.961	0.004	-0.005	-0.28	0.23
43	3.038	1.026	1070.55	1435.6	541.8	89.7	0.979	0.96	1.000	0.076	0.962	0.004	-0.004	-0.25	0.26
44	2.540	1.025	1070.05	1435.2	541.6	89.5	0.974	0.96	1.000	0.094	0.958	0.004	-0.004	-0.25	0.22
45	2.038	1.025	1070.40	1435.5	541.7	89.7	0.978	0.96	1.001	0.078	0.961	0.004	-0.003	-0.18	0.24
46	1.536	1.026	1070.51	1436.3	542.1	89.7	0.978	0.96	1.000	0.079	0.961	0.004	-0.003	-0.18	0.23
47	1.038	1.025	1070.46	1436.4	542.0	89.9	0.976	0.96	1.000	0.082	0.959	0.004	-0.001	-0.07	0.22

TEST PART HEAD-ALPHA WING YI ZT MIN SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-605 29 3.006 -0.01 4 PCT -0.01 -14.16 5 401 6-13-77 THANSONIC 1A1

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	XI	A	V4	PI	W	IT	ML	VTL/VM	PIL/PT	CPL	UT/VM	VT/VM	WI/VM	AATL	SMIL
2 48	0.542	1.025	1069.36	1435.0	541.2	89.4	0.974	0.96	1.000	0.043	0.959	0.004	-0.001	-0.04	0.23
4 49	0.036	1.024	1069.42	1435.5	541.4	89.6	0.977	0.96	1.001	0.079	0.961	0.004	0.000	0.03	0.24
6 50	-0.459	1.025	1070.50	1435.7	541.6	89.8	0.979	0.96	1.000	0.076	0.962	0.005	0.002	0.11	0.27
8 51	-0.961	1.025	1069.96	1435.6	541.6	89.6	0.984	0.97	1.000	0.067	0.967	0.004	0.003	0.19	0.22
10 52	-1.456	1.025	1070.20	1435.7	541.7	89.8	0.984	0.97	1.001	0.068	0.966	0.004	0.003	0.18	0.22
12 53	-1.960	1.025	1070.40	1435.5	541.6	89.9	0.992	0.97	1.001	0.055	0.973	0.004	0.004	0.25	0.26
14 54	-2.453	1.025	1070.19	1435.1	541.4	89.8	0.998	0.98	1.001	0.048	0.978	0.004	0.006	0.33	0.25
16 55	-2.960	1.025	1070.49	1435.3	541.7	89.8	1.001	0.99	1.000	0.040	0.980	0.004	0.003	0.16	0.24
18 56	-3.462	1.025	1070.09	1434.9	541.3	89.9	0.990	0.97	1.000	0.057	0.972	0.004	0.004	0.23	0.23
20 57	-3.962	1.025	1070.05	1435.2	541.6	89.5	1.001	0.98	1.001	0.041	0.980	0.004	0.004	0.30	0.26
22 58	-4.464	1.025	1069.35	1434.4	541.0	89.3	0.994	0.98	1.001	0.050	0.975	0.004	0.005	0.27	0.25
24 59	-4.969	1.025	1069.89	1434.9	541.3	89.6	0.995	0.98	1.000	0.049	0.976	0.004	0.005	0.27	0.26
26 60	-5.470	1.025	1070.44	1435.2	541.6	89.7	0.997	0.98	1.000	0.045	0.977	0.005	0.006	0.33	0.28
28 61	-5.969	1.025	1069.99	1434.9	541.4	89.6	0.998	0.98	1.000	0.044	0.978	0.004	0.005	0.27	0.26

TEST PART MEXICO ALPHM 4100 3.002 -0.001 143.6 0.03 5 403 DATE 4-13-77 AEDC PROPUSSION WIND TUNNEL TRANSONIC 161

OUTER FLOWFIELD SURVEY SUMMARY

POINT GP	AI	M	V1	WT	U	IT	ML	VTL/VM	PIL/PI	CPL	U1/VM	V1/VM	W1/VM	AATL	SWTL
1	28.046	1.025	1070.27	1436.0	541.1	89.6	0.999	0.99	1.000	0.043	0.978	0.010	0.005	0.28	0.59
2	23.546	1.024	1069.09	1433.9	540.6	89.4	0.996	0.98	1.000	0.046	0.977	0.010	0.004	0.21	0.61
3	23.042	1.025	1069.41	1435.4	541.6	89.4	1.003	0.98	1.000	0.036	0.982	0.010	0.004	0.23	0.59
4	22.546	1.026	1070.30	1435.5	541.8	89.4	1.008	0.99	1.000	0.029	0.985	0.009	0.004	0.21	0.54
5	22.046	1.026	1070.50	1435.7	541.9	89.7	1.013	0.99	1.001	0.021	0.990	0.009	0.005	0.26	0.51
6	21.542	1.026	1070.57	1436.0	542.2	89.8	1.011	0.99	0.999	0.023	0.988	0.006	0.005	0.30	0.37
7	21.041	1.025	1070.72	1436.9	542.3	90.0	1.052	1.02	1.000	-0.044	1.021	0.000	0.014	0.78	0.01
8	20.541	1.026	1070.82	1436.9	542.3	89.8	1.070	1.04	0.999	-0.072	1.036	-0.004	0.018	0.97	-0.22
9	20.044	1.025	1070.83	1437.1	542.3	89.9	1.068	1.03	1.002	-0.065	1.034	-0.021	0.017	0.93	-0.07
10	19.529	1.026	1070.78	1437.4	542.5	90.0	1.056	1.02	1.000	-0.048	1.024	0.003	0.011	0.59	0.15
11	19.032	1.026	1070.58	1437.0	542.3	89.8	1.043	1.01	1.000	-0.027	1.014	0.006	0.008	0.46	0.32
12	18.544	1.025	1070.08	1436.5	542.1	89.5	1.033	1.01	1.000	-0.013	1.007	0.010	0.006	0.33	0.96
13	18.037	1.025	1070.32	1436.7	542.2	89.7	1.024	1.00	1.000	0.002	0.999	0.011	0.004	0.23	0.63
14	17.540	1.026	1070.82	1437.1	542.5	89.9	1.016	0.99	1.000	0.016	0.992	0.014	0.002	0.11	0.40
15	17.037	1.026	1070.80	1436.1	542.1	89.9	1.009	0.99	1.001	0.029	0.986	0.016	0.001	0.05	0.96
16	16.538	1.026	1070.93	1435.0	541.7	89.9	0.998	0.98	1.001	0.046	0.977	0.018	0.002	0.09	1.05
17	16.035	1.026	1071.41	1434.4	541.7	90.0	0.994	0.97	1.000	0.054	0.973	0.018	0.001	0.03	1.03
18	15.536	1.027	1071.74	1433.9	541.6	90.0	0.994	0.97	1.001	0.053	0.974	0.018	0.000	0.02	1.04
19	15.042	1.027	1071.56	1432.4	541.0	89.9	1.008	0.98	1.004	0.035	0.985	0.019	0.000	0.01	1.04
20	14.538	1.027	1071.26	1432.0	540.9	89.6	0.990	0.97	1.001	0.040	0.970	0.018	0.001	0.08	1.05
21	14.043	1.025	1070.44	1430.6	539.9	89.9	0.987	0.97	1.000	0.063	0.969	0.017	0.002	0.09	1.03
22	13.535	1.025	1070.07	1429.5	539.3	89.8	0.983	0.97	1.000	0.069	0.965	0.017	0.002	0.13	0.99
23	13.056	1.025	1070.42	1429.4	539.3	90.0	0.995	0.98	1.000	0.049	0.976	0.011	0.004	0.22	0.66
24	12.529	1.025	1070.16	1429.1	539.1	90.1	1.018	0.99	1.000	0.012	0.994	0.010	0.004	0.54	0.57
25	12.034	1.026	1070.92	1432.1	540.6	90.1	1.035	1.01	1.001	-0.014	1.008	0.008	0.010	0.58	0.43
26	11.531	1.025	1070.04	1430.4	539.6	89.8	1.022	1.00	1.000	0.005	0.997	0.009	0.008	0.48	0.53
27	11.020	1.025	1070.25	1426.2	538.2	89.7	1.011	0.99	1.000	0.022	0.989	0.011	0.010	0.58	0.61
28	10.534	1.025	1070.18	1427.6	538.6	89.8	1.018	0.99	1.000	0.012	0.994	0.011	0.007	0.43	0.64
29	10.037	1.025	1069.87	1431.4	540.0	89.6	1.018	0.99	1.000	0.012	0.994	0.013	0.006	0.36	0.77
30	9.525	1.025	1070.35	1433.3	540.8	89.8	1.012	0.99	1.000	0.022	0.989	0.015	0.004	0.22	0.87

TEST NAME: MEX10-6 ALPHA4 WIND TUNNEL DATE: 4-13-77 AEC PROPULSION WIND TUNNEL

TRANSONIC 1A7

OUTER FLOW FIELD SURVEY SUMMARY

TEST NAME: MEX10-6 ALPHA4 WIND TUNNEL DATE: 4-13-77 AEC PROPULSION WIND TUNNEL

TRANSONIC 1A7

OUTER FLOW FIELD SURVEY SUMMARY

POINT	GP	AI	NI	VM	PI	U	TI	HL	VIL/VM	HTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SHTL
1	31	9.028	1.025	1069.91	1431.1	539.6	89.8	1.006	0.98	1.000	0.032	0.984	0.016	0.005	0.29	0.93
3	32	8.542	1.025	1069.95	1430.6	539.7	89.7	1.000	0.98	1.000	0.041	0.979	0.017	0.004	0.23	0.99
5	33	8.034	1.025	1070.17	1431.6	540.1	89.6	0.985	0.97	0.998	0.043	0.967	0.018	0.003	0.20	1.04
7	34	7.541	1.025	1070.62	1432.3	540.5	89.9	1.019	0.99	1.003	0.014	0.995	0.019	-0.000	-0.00	1.07
9	35	7.041	1.025	1070.74	1433.1	540.8	90.1	0.997	0.98	1.000	0.046	0.977	0.019	0.002	0.10	1.13
11	36	6.534	1.025	1070.69	1433.2	540.9	90.0	0.997	0.98	1.001	0.047	0.977	0.020	0.000	0.00	1.19
13	37	6.044	1.025	1070.54	1433.5	541.1	90.1	0.997	0.98	1.000	0.048	0.976	0.021	0.001	0.03	1.22
15	38	5.531	1.025	1070.46	1433.1	541.2	90.2	0.996	0.98	1.001	0.049	0.976	0.020	-0.000	-0.01	1.20
17	39	5.041	1.025	1070.66	1433.3	540.4	90.1	0.988	0.97	1.001	0.061	0.970	0.023	-0.000	-0.01	1.36
19	40	4.540	1.025	1070.48	1432.6	540.5	90.0	0.995	0.98	1.000	0.049	0.976	0.017	0.000	0.00	0.99
21	41	4.038	1.025	1070.73	1432.5	540.7	89.9	0.986	0.97	1.000	0.065	0.968	0.020	-0.001	-0.03	1.23
23	42	3.554	1.025	1070.32	1431.9	540.3	89.8	0.981	0.96	1.000	0.071	0.964	0.020	0.000	0.00	1.19
25	43	3.054	1.025	1070.20	1430.9	540.0	89.6	0.983	0.97	1.000	0.069	0.965	0.019	0.001	0.05	1.15
27	44	2.525	1.025	1070.40	1431.1	540.1	89.7	0.987	0.97	1.001	0.064	0.968	0.019	0.000	0.01	1.13
29	45	2.039	1.025	1070.29	1430.7	539.8	89.9	0.982	0.96	1.000	0.071	0.965	0.018	0.000	0.01	1.09
31	46	1.537	1.025	1071.18	1430.9	540.2	90.1	0.988	0.97	1.001	0.063	0.969	0.017	0.000	0.02	1.02
33	47	1.036	1.025	1070.79	1431.1	540.1	90.0	0.989	0.97	1.001	0.060	0.971	0.017	0.000	0.01	0.98
35	48	0.537	1.025	1070.46	1431.4	540.0	90.1	0.987	0.97	1.001	0.063	0.969	0.015	-0.000	-0.01	0.92
37	49	0.036	1.025	1070.71	1431.7	540.3	90.1	0.999	0.97	1.000	0.060	0.970	0.015	-0.000	-0.02	0.89
39	50	-0.460	1.025	1070.62	1432.5	540.6	90.1	0.991	0.97	1.000	0.057	0.971	0.014	-0.000	-0.01	0.85
41	51	-0.961	1.025	1069.98	1432.2	540.2	89.8	0.989	0.97	1.000	0.059	0.971	0.014	-0.000	-0.01	0.80
43	52	-1.469	1.025	1069.79	1432.2	540.2	89.8	0.996	0.98	1.001	0.047	0.977	0.014	0.000	0.01	0.80
45	53	-1.968	1.025	1069.49	1432.7	540.3	89.8	0.999	0.99	1.000	0.043	0.979	0.012	0.001	0.07	0.69
47	54	-2.471	1.025	1069.74	1432.7	540.3	89.6	1.010	0.99	1.003	0.028	0.984	0.012	0.002	0.12	0.67
49	55	-2.968	1.025	1069.78	1431.8	540.0	89.8	1.000	0.98	1.001	0.041	0.980	0.011	0.002	0.10	0.67
51	56	-3.473	1.025	1070.02	1431.9	540.1	89.9	1.001	0.98	1.000	0.039	0.981	0.011	0.002	0.10	0.66
53	57	-3.979	1.025	1069.92	1431.5	539.9	90.0	1.001	0.98	1.001	0.039	0.981	0.011	0.002	0.09	0.63
55	58	-4.469	1.025	1070.25	1431.0	539.8	90.1	1.001	0.98	1.000	0.039	0.980	0.013	0.002	0.12	0.77
57	59	-4.976	1.025	1069.90	1430.9	539.6	90.1	0.998	0.98	1.000	0.044	0.978	0.011	0.001	0.05	0.66
59	60	-4.976	1.025	1070.51	1431.7	540.1	90.2	1.004	0.98	1.001	0.035	0.983	0.011	0.002	0.11	0.66

TEST	PART	HEXID-6	ALPHA	PLUG	VT	WT	MM	SURVEY	DATE	AEDC	PROPULSION	WIND	TUNNEL		
1F-605	00	2-005	5-07	0-01	-0-00	-0-11-19	5	401	4-14-77		TRANSONIC	161			
OUTER FLD FIELD SURVEY SUMMARY															
POINT	GP	AT	M	VM	MT	U	TL	VTL/VM	MIL/MT	CPL	UT/VM	VI/VM	WI/VM	AATL	SWTL
1	25	-5-076	1-023	1069-62	1420-0	535-3	90-5	1-007	0-09	1-000	0-027	0-006	0-005	0-029	0-35
2	25	-5-002	1-027	1071-93	1426-4	540-4	90-3	1-021	1-00	1-002	0-012	0-007	0-005	0-029	0-38
3	25	-3-581	1-027	1072-66	1433-2	541-6	90-5	1-025	1-00	1-002	0-006	0-006	0-005	0-028	0-36
4	25	-3-581	1-026	1069-73	1430-3	541-5	90-2	1-004	0-98	1-001	0-034	0-004	0-006	0-032	0-31
5	25	-3-584	1-026	1069-83	1436-4	542-3	90-5	1-010	0-94	1-001	0-040	0-080	0-005	0-064	0-24
6	25	-3-403	1-024	1069-90	1434-4	542-1	90-6	0-995	0-98	1-001	0-046	0-077	0-005	0-029	0-34
7	25	-2-563	1-024	1069-39	1438-9	542-3	90-1	0-948	0-96	1-001	0-043	0-079	0-006	0-009	0-55
8	25	-1-947	1-025	1070-64	1439-4	543-0	90-6	0-990	0-97	1-000	0-051	0-072	0-006	0-008	0-49
9	25	-1-536	1-026	1069-66	1439-4	542-7	90-3	0-999	0-94	1-000	0-041	0-040	0-008	0-004	0-24
10	25	-0-974	1-026	1072-94	1440-1	544-4	90-4	1-007	0-98	1-001	0-034	0-005	0-003	0-18	0-31
11	25	-0-560	1-025	1070-19	1439-4	542-9	90-6	0-995	0-97	1-001	0-045	0-068	0-006	0-003	0-16
12	25	-0-561	1-025	1070-36	1439-5	542-9	90-4	0-984	0-97	1-001	0-059	0-071	0-005	0-001	0-09
13	25	-0-521	1-025	1070-72	1439-4	543-0	90-4	0-978	0-96	1-001	0-077	0-062	0-002	0-001	0-04
14	25	-0-944	1-026	1071-67	1440-1	543-5	90-7	0-984	0-97	1-001	0-048	0-066	0-005	0-000	0-02
15	25	-1-411	1-025	1070-97	1439-5	543-2	90-4	0-945	0-97	1-001	0-067	0-077	0-007	0-001	0-06
16	25	-1-444	1-026	1071-67	1440-1	543-6	90-5	0-947	0-97	1-001	0-064	0-064	0-006	0-002	0-12
17	25	-2-045	1-026	1071-72	1440-1	543-6	90-6	0-967	0-97	1-001	0-064	0-064	0-005	0-004	0-23
18	25	-2-994	1-026	1071-61	1439-4	543-6	90-4	0-993	0-97	1-001	0-071	0-065	0-005	0-004	0-23
19	25	-3-067	1-026	1071-62	1440-1	543-9	90-4	0-990	0-96	1-001	0-076	0-063	0-005	0-007	0-39
20	25	-3-471	1-024	1070-00	1439-5	542-9	90-4	0-994	0-98	0-999	0-047	0-076	0-006	0-017	0-01
21	25	-4-516	1-024	1069-79	1439-5	542-6	90-5	0-985	0-97	1-000	0-064	0-064	0-006	0-009	0-50
22	25	-4-951	1-023	1069-60	1439-1	542-2	90-2	0-982	0-97	1-001	0-042	0-070	0-005	0-005	0-32
23	25	-5-546	1-024	1069-39	1439-1	542-6	90-5	0-990	0-97	1-001	0-056	0-073	0-007	0-005	0-28
24	25	-5-974	1-024	1069-39	1439-1	542-6	90-2	0-996	0-98	1-001	0-055	0-073	0-006	0-006	0-33
25	25	-6-973	1-025	1070-66	1439-4	543-1	90-6	0-991	0-97	1-001	0-055	0-073	0-006	0-005	0-30
26	25	-6-993	1-024	1070-13	1439-4	542-4	90-3	0-992	0-97	1-001	0-054	0-073	0-006	0-004	0-24
27	25	-7-510	1-025	1070-78	1439-7	543-1	90-6	0-994	0-97	1-000	0-051	0-075	0-006	0-004	0-24
28	25	-7-994	1-025	1070-73	1439-6	543-1	90-4	0-996	0-98	1-001	0-047	0-077	0-006	0-004	0-24
29	25	-8-476	1-024	1070-03	1439-2	542-5	90-6	1-001	0-98	1-001	0-044	0-091	0-006	0-003	0-18
30	25	-9-004	1-024	1069-48	1439-5	542-1	90-3	1-004	0-98	1-000	0-033	0-094	0-007	0-002	0-14
32	25	-9-520	1-025	1070-62	1439-2	542-4	90-4	1-006	0-99	1-000	0-010	0-085	0-006	0-001	0-06
33	25	-9-935	1-025	1070-68	1439-5	542-9	90-6	1-017	0-99	1-001	0-014	0-094	0-006	0-000	0-01
34	25	-10-603	1-024	1069-62	1439-2	542-1	90-2	1-015	0-99	1-001	0-012	0-093	0-006	0-002	0-11
35	25	-10-974	1-025	1070-97	1439-3	543-1	90-5	1-027	1-00	1-001	0-004	1-001	0-002	0-13	0-39
36	25	-11-421	1-024	1070-06	1439-1	543-0	90-4	1-031	1-00	1-000	0-008	1-004	0-004	0-003	0-18
37	25	-12-055	1-025	1071-06	1439-3	543-1	90-5	1-008	0-99	1-000	0-029	0-086	0-004	0-001	0-05
38	25	-12-453	1-025	1070-92	1439-6	543-1	90-4	0-998	0-97	1-000	0-041	0-070	0-005	0-003	0-18
41	25	-13-061	1-024	1071-50	1439-1	543-4	90-5	0-980	0-96	1-001	0-075	0-063	0-006	0-007	0-33
42	25	-13-593	1-024	1069-60	1439-3	542-5	90-4	0-975	0-96	1-001	0-040	0-060	0-006	0-007	0-43
43	25	-13-947	1-024	1070-22	1438-6	542-4	90-5	0-961	0-96	1-001	0-072	0-055	0-006	0-009	0-47
45	25	-15-564	1-025	1070-67	1439-3	543-2	90-2	0-974	0-96	1-000	0-077	0-062	0-006	0-009	0-54
46	25	-15-920	1-025	1070-32	1439-0	542-7	90-4	0-980	0-96	1-001	0-074	0-063	0-006	0-010	0-58
47	25	-16-510	1-025	1071-04	1439-9	543-4	90-6	0-984	0-97	1-000	0-048	0-066	0-007	0-011	0-66
48	25	-16-941	1-024	1069-73	1438-4	542-4	90-3	0-980	0-96	1-001	0-072	0-064	0-007	0-011	0-64
49	25	-16-974	1-024	1069-63	1438-4	542-2	90-4	0-981	0-97	1-001	0-071	0-065	0-007	0-011	0-64
50	25	-16-941	1-025	1070-51	1439-0	542-7	90-6	0-986	0-97	1-001	0-064	0-064	0-006	0-011	0-65
51	25	-16-944	1-025	1071-51	1439-0	543-3	90-7	0-985	0-97	1-001	0-067	0-067	0-010	0-011	0-66
53	25	-16-947	1-025	1070-52	1438-9	542-7	90-6	0-946	0-94	1-000	0-047	0-077	0-006	0-004	0-44
56	25	-16-953	1-024	1070-02	1438-2	542-9	90-5	0-997	0-94	1-000	0-040	0-077	0-007	0-010	0-61
55	25	-16-946	1-024	1070-14	1438-4	542-4	90-6	1-000	0-94	1-001	0-040	0-080	0-007	0-010	0-57
56	25	-16-974	1-025	1070-66	1438-1	542-5	90-5	1-006	0-98	1-000	0-032	0-084	0-007	0-009	0-50
57	25	-20-031	1-024	1070-00	1437-6	542-1	90-3	1-011	0-99	1-000	0-022	0-089	0-006	0-007	0-40
54	25	-20-497	1-024	1069-90	1437-0	541-6	90-4	1-014	1-00	1-001	0-010	0-095	0-009	0-005	0-30
54	25	-20-947	1-024	1070-24	1439-9	541-4	90-5	1-031	1-01	1-001	0-011	1-004	0-007	0-004	0-23
60	25	-21-456	1-024	1069-71	1439-4	541-3	90-3	1-040	1-01	1-000	0-025	1-013	0-007	0-003	0-16
61	25	-21-940	1-024	1069-90	1439-1	540-9	90-5	1-056	1-03	1-000	0-051	1-025	0-007	0-004	0-25
62	25	-22-500	1-023	1069-90	1439-1	540-3	90-2	1-060	1-03	1-000	0-058	1-029	0-007	0-004	0-23
63	25	-23-004	1-024	1071-54	1439-4	541-3	90-4	1-064	1-03	1-000	0-068	1-034	0-007	0-005	0-27
64	25	-23-995	1-024	1070-10	1439-0	540-3	90-4	1-032	1-01	1-000	0-012	1-006	0-009	0-000	0-01
65	25	-23-996	1-024	1070-34	1439-3	540-3	90-6	1-023	1-00	1-000	0-003	0-099	0-007	0-004	0-22

[illegible]

TEST PART REXIUM-ALFHM WING YI ZI NUM SURVEY DATE AEDC PROPULSION WIND TUNNEL
 1F-445 81 3.011 5.07 4 PCT 14.16 1.00 5 403 4-14-77 TRANSONIC 16T

OUTER FLOWFIELD SURVEY SUMMARY

POINT	GM	AT	M	VM	PT	U	TI	ML	VTL/VM	PTL/PT	CPL	UT/VM	VT/VM	WT/VM	AATL	SWTL
1	25	24.036	1.025	1070.28	1482.2	543.2	90.4	1.015	0.99	1.001	0.017	0.992	0.011	0.025	1.42	0.64
2	25	23.494	1.026	1072.14	1441.7	544.5	90.7	1.021	1.00	1.001	0.009	0.996	0.011	0.024	1.39	0.62
3	25	22.967	1.027	1072.49	1433.2	543.8	90.4	1.021	1.00	1.000	0.009	0.995	0.010	0.024	1.38	0.57
4	25	22.531	1.026	1071.60	1436.9	542.4	90.6	1.025	1.00	1.000	0.002	0.999	0.014	0.024	1.38	0.41
5	25	22.036	1.025	1070.96	1434.5	541.3	90.5	1.020	1.00	0.999	0.007	0.996	0.009	0.023	1.32	0.52
6	25	21.424	1.025	1070.98	1433.2	540.8	90.4	1.031	1.05	0.998	-0.106	1.052	-0.000	0.023	1.28	-0.00
7	25	21.013	1.025	1070.78	1435.5	541.5	90.7	1.128	1.08	0.999	-0.162	1.080	-0.006	0.023	1.24	-0.33
8	25	20.503	1.024	1070.02	1436.3	541.6	90.2	1.124	1.08	0.999	-0.156	1.078	-0.008	0.023	1.22	-0.43
9	25	20.030	1.026	1071.73	1436.5	543.0	90.7	1.113	1.07	1.000	-0.137	1.069	-0.004	0.021	1.13	-0.21
10	25	19.482	1.026	1071.75	1439.3	543.5	90.4	1.095	1.05	1.000	-0.108	1.054	0.002	0.019	1.02	0.11

[illegible]